

QUESTIONS SUBMITTED BY SENATOR COCHRAN

FOOD SAFETY INITIATIVE

Question. FDA's fiscal year 1999 budget includes \$74 million for the Administration's food safety initiative, a \$50 million increase over the fiscal year 1998 level of \$24 million. What is being accomplished with the \$24 million provided for this initiative and what is the justification for the significant increase requested for this initiative for fiscal year 1999?

Answer. The fiscal year 1998 Food Safety Initiative, FSI, request represented the first installment on a major government-wide effort to reduce foodborne illness through significant enhancements to food safety and public health systems that were designed in the early part of this century. The requested fiscal year 1999 FSI increase represents a second installment, and has two major objectives. One is to permit FDA to work jointly with other federal agencies, including USDA, EPA, and CDC, and the states to strengthen and expand the food safety activities underway and build on gains made with the fiscal year 1998 resources. The second objective is to increase the emphasis on ensuring the safety of domestic and imported fresh produce in response to the President's October 2, 1997, directive to ensure the safety of fresh produce.

With the requested resources, FDA and its federal and state partners will be able to respond more rapidly and effectively to a wide range of health threats posed by foodborne hazards, including emerging pathogens, natural toxins, and antimicrobial resistant pathogens. These expanded efforts are needed to permit the Nation's food safety regulatory systems to deliver on national goals related to protecting and improving the health and well-being of our citizens.

One example is in research conducted at FDA's National Center for Toxicological Research, NCTR. Part of their research focus with fiscal year 1999 funding will be in the areas of pathogen identification, antibiotic resistance, microbial risk assessment and foodborne contamination, to include exploring the prevalence of resistance determinants in microorganisms and how these determinants are affected by selective pressure from the environment. Other studies will be initiated to evaluate the bioremediation of veterinary drug residues in the environment and to develop procedures to measure pathogens in animal feeds.

Other examples of this increased effort are to enhance surveillance systems by expanding the ongoing systematic collection, analysis, and interpretation of antimicrobial susceptibility surveillance data, which will enable FDA to ensure accurate and valid information that can be used to minimize further the transmission of resistant pathogens through the food chain. FDA plans to increase the overall capacity—the number of microbial isolates in the database—of the National Antimicrobial Susceptibility Monitoring Program by 20 percent in order to ensure a high likelihood of detection of emerging resistance trends in zoonotic enteric pathogens. Educational partnership agreements with state and local agencies will be initiated and use existing mechanisms such as Cooperative Extension and professional associations to strengthen and implement programs to educate producers, veterinarians, state and local regulators about proper drug use and the incorporation of HACCP principles to reduce foodborne pathogens into industry quality assurance programs to ensure public health by minimizing the occurrence of residues in edible tissues. Improved and more standardized risk assessments would permit the ranking of food safety concerns to provide for better public health protection and more efficient utilization of resources. These initiatives will also improve the utility of confidence in risk assessment among scientists and the general public by providing for more transparent risk analysis. These initiatives will provide better risk assessments in order to set priorities, to evaluate surveillance plans, risk reduction strategies, and research programs for improving food safety.

The second objective of the fiscal year 1999 Food Safety Initiative is to increase the emphasis on ensuring the safety of domestic and imported fresh produce in response to the President's October 2, 1997, directive to ensure the safety of fresh produce. The President's Fresh Produce Initiative is designed to expand the scope and focus of the original FSI and to develop and implement strategies required to address more effectively critical safety issues associated with fresh produce. Over the past several years, several major foodborne illness outbreaks have been associated with the consumption of fresh fruits and vegetables or fruit and vegetable products. These include outbreaks linked to *Cyclospora* contamination of raspberries imported from Guatemala and domestically-produced apple juice contaminated with *E. coli* O157:H7. Also, *Salmonella* contamination has been found on melons and other produce.

There are several important food safety issues that necessitate a special focus on hazardous microbial contamination of fresh produce. One is the low rate of monitoring provided annually for imported produce products. With existing resources, FDA examines for microbial contamination only about 0.2 percent of the approximately 430,000 import entries of fresh produce for microbial contamination. Also, it is anticipated that the per capita consumption of fresh produce will increase significantly in the future as health conscious consumers follow government dietary guidance and take advantage of the scientifically established benefits of these products. Current estimates indicate that there will be a 33 percent increase in the importation of fresh produce between now and fiscal year 2002. FDA needs resources to develop and implement science based strategies to minimize levels of contaminants that may be injurious to human health in these foods.

Under this initiative, FDA is developing with USDA and the agricultural community draft Good Manufacturing Practices—GMP's—and Good Agricultural Practices—GAP's—guidance for use by producers, domestic as well as foreign. FDA is accelerating research to develop or improve the detection and intervention/prevention techniques for pathogens, develop and implement education and technical assistance programs to promote appropriate appreciation of the guidance, and develop appropriate specific guidance on an as needed basis. The resources requested for this new initiative will promote use of voluntary GAP/GMP guidance through education and technical assistance to domestic and foreign producers; and evaluate growing, harvesting and production practices in countries that export fresh produce to the U.S. Moreover, the President directed that a legislative proposal be developed to expand FDA's authority over imported foods to be similar to that already provided to USDA for meat and poultry products. The bill permits the agency under appropriate circumstances to declare foods or specific commodities from a country to be adulterated if FDA determines that a particular facility or country's food system does not provide the same level of protection that is provided for comparable domestic products, and thus, refuse them entry into the United States.

FDA will continue to work with foreign governments and producers to take any steps necessary to help ensure that imported food products meet U.S. food safety requirements or otherwise achieve the level of protection required. If FDA determines that the steps needed to address an existing or potential risk have not been taken and that the affected products therefore will not meet U.S. food safety requirements or otherwise achieve the level of protection required, FDA is authorized to deny such products entry into the United States.

For fiscal year 1998, FDA has accomplished a significant number of activities under the Food Safety Initiative that will contribute to a safer food supply. This is due in part to the cooperation received from other entities that are involved in food safety, such as the Department of Agriculture and the Centers for Disease Control and Prevention, I would be happy to provide a listing of these accomplishments by each of the six categories.

I would first like to share a success story that was possible with the funding provided in fiscal year 1998. The National Antimicrobial Susceptibility Monitoring Program—NASMP—was initiated in 1996. It began as a collaboration among FDA, CDC, and USDA to monitor bacterial foodborne pathogens for changes in antimicrobial susceptibility, using *Salmonella* as a sentinel organism. The goals of the program are: to identify resistance as it emerges and to identify patterns of resistance, to allow timely response to changes in susceptibility through information sharing and other mechanisms, and to identify areas that require more detailed investigation. This initial effort was the precursor to the FSI Early Warning System for Foodborne Disease Surveillance related to antimicrobial resistance. The 1998 FSI monies allowed extensive expansion and augmentation of the NASMP. Isolates which are tested through this program originate from clinically ill animals and humans, healthy farm animals, and animals at slaughter. The number of isolates is increasing annually to obtain an increasing representativeness of the sample, including the incorporation of produce and animal feed isolates and new bacterial species such as *E. coli* and *Campylobacter*.

Having an established surveillance system enabled the Federal partners to identify the presence of a multi-drug resistant *Salmonella typhimurium* DT 104—StmDT104—in humans and animals. StmDT104 had been responsible for human disease outbreaks in the United Kingdom and was recognized as widespread in distribution and increasingly prevalent in the United States. This early warning of a potential epidemic, such as that seen in the United Kingdom, was achieved through the NASMP and enabled CDC to warn state health departments of STMDT104's presence, and allowed augmented monitoring for this pathogen. As a result public health officials were prepared for the Vermont dairy farm outbreak and were in a position to take preventative steps to minimize the spread. This farm is currently

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

HEARINGS BEFORE A SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE ONE HUNDRED FIFTH CONGRESS SECOND SESSION

ON

H.R. 4103/S. 2132

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF DEFENSE
FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1999, AND FOR
OTHER PURPOSES

**Department of Defense
Nondepartmental witnesses**

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

THURSDAY, FEBRUARY 26, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 2:32 p.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Hutchison, Inouye, Bumpers, and Dorgan.

DEPARTMENT OF DEFENSE

OFFICE OF THE DEPUTY SECRETARY

STATEMENT OF HON. JOHN HAMRE, DEPUTY SECRETARY

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. The subcommittee will come to order. The subcommittee meets today to consider the administration's appropriations request for the Department of Defense for fiscal year 1999. We are glad to welcome before us the Honorable John Hamre.

Dr. Hamre is now the Deputy Secretary of Defense. We have relied upon you heavily, not only Senator Inouye and myself, but the whole committee, for your advice during the time you were Comptroller. I am hopeful we can build on the relationship we already have with you and your colleagues, and we really congratulate the President on giving you this new responsibility and additional trust in the Department of Defense.

Dr. HAMRE. Thank you, sir.

Senator STEVENS. But today we are here to review the fiscal year 1999 defense budget. There is a very difficult series of financial choices we must make in terms of allocation of funds. I too believe that we are short going in. I think we could use some more money. I do not know whether in the process of what is going to go on this year we are going to get any additional moneys, but I know you are struggling to maintain the readiness of combat forces. We all want to improve the quality of life of our people in uniform, no matter where they are, and the contingencies that we face now are awesome.

So we do not want to get involved in any particular issues, but clearly we have talked in the past about some of the meetings we have had with members of the armed forces around the world and how they have reported to us the excessive demands on them and

the time that they have been away from their families. Now that is increasing rather than decreasing, and we have a situation here now where we have some burdens on our accounts because of monies that have been spent in the past.

I am not sure that the increase that is indicated, for instance, in operations and maintenance [O&M] of \$3.3 billion really adequately takes into account some of the deficits that we have going into 1999. I am hopeful that we can work with you and to deal with the difficulties that we have here.

I would say that, as staff has pointed out to me, we believe we are about \$2 billion below in terms of the acquisition account in the modernization effort. It is not going to be, as I just told some of my colleagues, a pleasant year for appropriators. The House just told me, Dr. Hamre, that they feel they have 52 days left in session. We think we have about 70 days left in session.

I am glad to see the chairman of the Budget Committee here. I think he alone is going to take the 70 days.

Senator DOMENICI. Whatever you say.

Senator STEVENS. I mean, the issues involved that we have to face, we face them after he resolves his problems, is what I am saying.

But I do again welcome you, and I am really delighted as the chairman of this committee to know that you are going to be working with us on these very difficult issues.

Senator INOUE.

STATEMENT OF HON. DANIEL K. INOUE

Senator INOUE. Thank you very much, Mr. Chairman. I wish to join you in welcoming Dr. Hamre. It is always a pleasure having you here with us. We have seen you go through your manhood rites to come to where you are today, and so we are well aware of your capabilities and potentials.

Many commentators have said that we are increasing defense, and as far as I interpret it I look upon it a little differently. Although the dollar figures will show a \$1.1 billion increase in personnel, for example, actually it is a decrease when you consider inflation. And we are decreasing personnel in the Navy by 14,000, Army by 8,000.

The same thing can apply to O&M funds. There is an increase, I believe, as far as dollars are concerned, of \$0.4 billion, but it is actually a real reduction of about 1.5 percent. So I am, like you, concerned not only about modernization, but about readiness, and I do hope with your budget we will be able to accomplish those missions. You can be assured of our support.

Thank you, sir.

Senator STEVENS. Senator Hutchison.

STATEMENT OF HON. KAY BAILEY HUTCHISON

Senator HUTCHISON. Mr. Chairman, I would just say that I too am very concerned. I was not quite sure what Senator Inouye meant when he said we have watched your rites of manhood, but I do not think I am going to pursue it.

What I would like to say is that clearly we are building up in the Persian Gulf and Secretary of Defense Cohen has said that the

edges are getting frayed with our defenses because of the troops we have in Bosnia, which now look like they are potentially going to be there for a longer term. And I would like for you to address in your testimony just how we are going to support another theater where there is a buildup in Southwest Asia.

Certainly I am going to tell you right up front, I support a build-up there. I do not want to be over in the Persian Gulf with too few people. So I think that is a legitimate U.S. security interest. But if the Secretary of Defense says our edges are getting frayed, I want to know from where are these forces coming and how do you propose to deal with that and also ask for the continued troop commitment in Bosnia.

So with that, I will just wait for your testimony and then ask you specific questions.

Thank you, Mr. Chairman.

Senator STEVENS. Senator Dorgan.

STATEMENT OF HON. BYRON DORGAN

Senator DORGAN. Mr. Chairman, I have no formal statement. Thank you for calling the hearing. I am anxious to hear the discussion today. And I thank you for opening the curtains. It is very unusual in committee hearings in Congress to have open curtains.

Senator STEVENS. Really?

Senator DORGAN. It is. You almost never see them.

Senator INOUE. See what you have done.

Senator HUTCHISON. Fresh air.

Senator STEVENS. I did not know I had done it, but I am glad I did it. [Laughter.]

Senator DORGAN. Well, thank you anyway.

Senator STEVENS. Well, we could get into some Alaskan comments about curtains. We put ours up in the summertime and take them down in the wintertime. You have to understand that.

Go ahead, Senator Domenici.

STATEMENT OF HON. PETE V. DOMENICI

Senator DOMENICI. Well, I do not want to be a pest or a nuisance, but let me make sure that I understand. You intend to send us a supplemental for Bosnia?

Dr. HAMRE. Yes, sir.

Senator DOMENICI. And the military will not have to go find that money? You will ask that it be over and above what was provided as the capped amount in the budget?

Dr. HAMRE. Yes, sir.

Senator DOMENICI. So you ask that it be designated an emergency?

Dr. HAMRE. Yes, sir.

Senator DOMENICI. Now, how much is that going to be?

Dr. HAMRE. Sir, we are in the final stages of—

Senator DOMENICI. I do not know that we are supposed to be asking questions. Why do I not do that. I have got to wait my turn. I have got to wait.

Senator STEVENS. I thought perhaps you were leaving.

Senator DOMENICI. No; let me turn it into a statement.

Senator STEVENS. We would be glad to have you ask a few questions.

Senator DOMENICI. No; I will not do that. That is not right.

I am just going to say that I am concerned that we not find ourselves once again in the position where the various chiefs have to come running to our offices saying they have to redo a budget which they thought they had already submitted, in order to find money for reprogramming and the like for Bosnia or Iraq. And I hope you can explain to us why—if we are going to have a different policy this year, what that policy is.

I think everyone here should know that this issue was raised by Senator Stevens and I as we talked with the administration spokesman about Iraq.

In addition, I hope you would address—[coughs]

Senator INOUE. See what happens when you open the curtains.

Senator DOMENICI. I have a little cold.

Senator STEVENS. It is all those neutrinos that are coming in through the window. [Laughter.]

Senator DOMENICI. I am trying to be calm, too.

Dr. HAMRE. We need you to live through the markup, sir.

Senator DOMENICI. I hope you will explain what we are to do about the different estimates of what your program costs between CBO and OMB. That is a lot of money. You estimate it at \$3.7 billion less, which means if we follow your program we have to look for \$3.7 billion to get down to, under CBO's number, to get to your budget.

I do not think we ought to bear that whole problem. I think that ought to be borne by you all.

Thank you very much, Mr. Chairman.

Senator STEVENS. I note the arrival of the distinguished Senator from Arkansas.

Senator BUMPERS. You noticed.

Senator STEVENS. Yes.

Senator BUMPERS. I do not have an opening statement. I know that breaks your heart.

INTRODUCTION BY DR. HAMRE

Senator STEVENS. Yes; I am delighted. It is going to be a nice afternoon. We are in the sunshine and the open.

So we can proceed with your statement. I understand you have a series of charts. Is there any way that the public can see those charts? We have them in front of us.

Dr. HAMRE. Sir, I do not know. I know we did bring extra copies.

Senator STEVENS. Turn it around and let them see it. We will watch this one.

Dr. HAMRE. We will see what we can do to try to get it adjusted so that people can see it.

Can I just say by way of introduction first off my sincere thanks for inviting me to come up. This is the first time I have had a chance to come before you as the Deputy Secretary. I think it is why our national motto is "In God We Trust" that I am here, and I am grateful that you would let me come up. Thank you.

I also would say, on a very personal note, probably the most unusual privilege that anyone has is a chance to serve as a comptrol-

ler because in that capacity you get the chance to work with Congress in the most professional and responsible ways. The courtesies that you extended me, Mr. Chairman and Senator Inouye, to bring me into your trust so that I could help build a program was an enormous professional honor and experience, and I am very grateful for it and I thank you for much.

Today I would like to try to go through very briefly an outline of the President's proposal that Secretary Cohen would have given had he been here, and he will go through, of course, with you later on in the year. I will be very quick so that we can get into the questions because I think that those are more important to you.

Sir, we did have copies that were distributed, so I think that people in the audience——

Senator STEVENS. People out there have them?

Dr. HAMRE. I hope they do. I think we brought a bunch of copies.

Senator STEVENS. All right, very good. Thank you.

NEW DEFENSE STRATEGY

Shape international environment
 —Sustain presence and support engagement
 Respond to full spectrum of crises
 —Protect readiness and force structure by reducing overhead
 Prepare now for uncertain future
 —Accelerate modernization and exploit Revolution in Military Affairs

QDR Program is strategy driven

NEW DEFENSE STRATEGY

Dr. HAMRE. Let us begin. First, this budget is the first budget that the Secretary is actually submitting, because this is the one that reflects the quadrennial defense review, reflecting the strategy that he helped build last spring. There were three large elements to that strategy: to help shape the future, to respond to crises that come up, and then to prepare for the long term.

Shaping the future is obviously probably one of the smallest parts of our budget, but I would argue one of the most important parts. For example, you the Senate are prepared to now enter into a discussion about whether we should expand NATO and bring in three new partners. That is very much an issue of shaping the future. I know it is going to be a controversial subject, one that is going to take a lot of debate, and there should be a lot of debate because it is an enormously important issue. But how we approach that is the way in which we are shaping our security forces, our security posture in the future.

Responding is very much the day-to-day business of the Department, and, of course, these last 2 months have shown that we still live in a perilous time and there still are demands. We just this hour are still flowing forces into the Persian Gulf region as we are bringing everybody into theater that the Secretary and the President mobilized in the last weeks or so. This is the bread and butter business of the Department, to be able to respond to emergencies like we are seeing right now. That obviously consumes a major portion of our budget.

I think this also is where we have the readiness challenges, and I will talk about that in a few minutes.

Then finally, preparing for the future is very much about building the weapons systems and building the personnel for the future. It is not just weapons, although we clearly need to do that, and we have gone too far in our procurement holiday, as the Secretary says. We really need to start getting modernization back, as you said, Mr. Chairman, in your opening statement. And I will talk about each of those in subsequent charts.

BALANCED BUDGET AGREEMENT							
[Function 050 dollars in billions]							
	Fiscal year—						
	1996	1997	1998	1999	2000	2001	2002
Administration Proposal	257.8	254.4	.....	.....	.....	.....	.....
Congressional Adds	+ 8.2	+ 11.8	.....	.....	.....	.....	.....
Total	266.0	266.2	.....	.....	.....	.....	.....
National Defense Topline .....	.....	.....	267.6	270.6	275.9	283.8	287.1
Projected Deficit	107	22	10	(¹)	.....	.....	.....

¹ Deficit calculations include \$3 billion allowance for costs of extending Bosnia peacekeeping mission and domestic emergencies.

Agreements sets zero-sum framework for budget changes

FISCAL RESOURCES—BALANCED BUDGET AMENDMENT

First let me just frame the overall fiscal context. What I am showing you on this chart is the budget resources. If you look, everything to the right side of that red line, vertical line, the 1998 through the year 2002, those are the dollars that were agreed on in the budget resolution last year, the balanced budget amendment and the budget resolution. And those are the dollars to which we have built a defense program.

Now, I need to point out, as Senator Domenici raised earlier, in 1998 and in 1999 there are additional funds that will be required for a supplemental for Bosnia and for Iraq in 1998 and for ongoing operations in Bosnia in 1999. Those are issues that go beyond the balanced budget amendment, so it does require an emergency designation in fiscal year 1998 so that it does not come from the Department of Defense totals.

For fiscal year 1999 it would come out of the allowance that was included in the budget submission, and the President's budget included \$3 billion for Bosnia and for any other emergencies that might come up.

Senator STEVENS. Your chart is interesting, Doctor, but I notice the projected deficit. That was not part of the budget agreement. The budget agreement was it would be zero in 2002. And I know we are projected to get there sooner.

Dr. HAMRE. Yes, sir.

Senator STEVENS. But the impression might be made to some people that it's the defense spending that is leading to the deficit.

Dr. HAMRE. I am sorry, I do not mean to mislead anybody, and you are right to point it out. At the time the balanced budget amendment was reached, of course, the projected deficit was not going to get to zero until further out into the future. The economy has performed better and it has obviously brought it back, so that we are getting to it sooner.

Defense, we are staying on the path that we were given last year, and we have built a program around that path. We could not accommodate the extra costs of Bosnia and Iraq inside that spending cap, and that is why we are going to have to ask for supplemental funding and it is being made an emergency designation.

Next chart.

MAJOR READINESS INITIATIVES	
<i>People</i>	Address perstempo concerns with new unit management systems and reducing lower priority exercises
<i>Training</i>	Maintain OPTEMPO levels
<i>Equipment</i>	Increase funding for maintenance and spares
Maintaining high readiness requires constant vigilance	

MAJOR READINESS INITIATIVES

Let me first talk about readiness, and this is simply to organize. These are to organize my thoughts. But obviously your concerns are foremost about readiness, and I know you have heard many concerns. You have been out in the field and you have heard concerns about readiness, and I think we do have readiness issues and problems that we have to deal with.

Obviously, I think there are three major ones. One is, of course, the problem with pilots and the pilot shortages we are experiencing in the Air Force and the Navy, and that is very serious. It is very hard to deal with that problem because the airlines are hiring and the optempo is high and it is very stressful. Everything that the Air Force was planning to do to try to mitigate some of that, of course, now had to be set back when we had to deploy to the Persian Gulf. So it is a problem. That is a real challenge this year.

Senator STEVENS. If I could interrupt you again, it is worse than that. The reenlistment rate of our pilots throughout the services is abysmal. If you think about it, whether it is flying the no-fly zone in Iraq or the so-called cap over Bosnia or the protection in South Korea, these people who are trained to be high performance combat pilots are out there flying squares 4 and 5 hours a day, month in and month out.

I think that none of us have really looked at the disincentive to someone, to train them to be high performance people and then get them out there to fly what could be flown by people in their first year as a pilot. I do not know what the answer is, but it is going

to get worse before it gets better until we find a solution for that drudgery duty that has been given to pilots in terms of these peace-keeping activities.

Dr. HAMRE. Sir, we saw the reenlistment rates fall sharply last year, and that was an early warning signal that we had problems. We put out more money and put out bonuses to try to get a higher reenlistment rate, but frankly it has fallen short. And that is going to be a problem, to hold onto good pilots.

Senator HUTCHISON. Twenty-nine percent this year.

Dr. HAMRE. Yes, I know.

Senator HUTCHISON. A \$60,000 bonus.

Senator BUMPERS. What is that, Kay?

Senator HUTCHISON. A \$60,000 bonus they offer, and 29 percent took them up on it this year.

Senator STEVENS. We had a 29-percent reenlistment rate.

Senator HUTCHISON. As opposed to 60 percent last year. Unbelievable.

Dr. HAMRE. Yes; it is going to be a real challenge. That is clearly a major challenge.

A second area where we were having I think readiness problems was in the area of infantrymen in the Army. There were lots of stories about holes in infantry units and squads out in the Army, and as they were sending units to Bosnia, for example, they were filling them up to 100 percent and that left even more shortages out at home station here.

That was really a product of the Army fell short on their recruiting goals for 11 Bravos, for infantrymen. We put on some extra funds, the Army did. They put on extra recruiters. They needed to basically recruit an extra 5,000 people. And I actually think that problem is starting to get fixed, although it is going to take us another couple of months to start seeing that in the force.

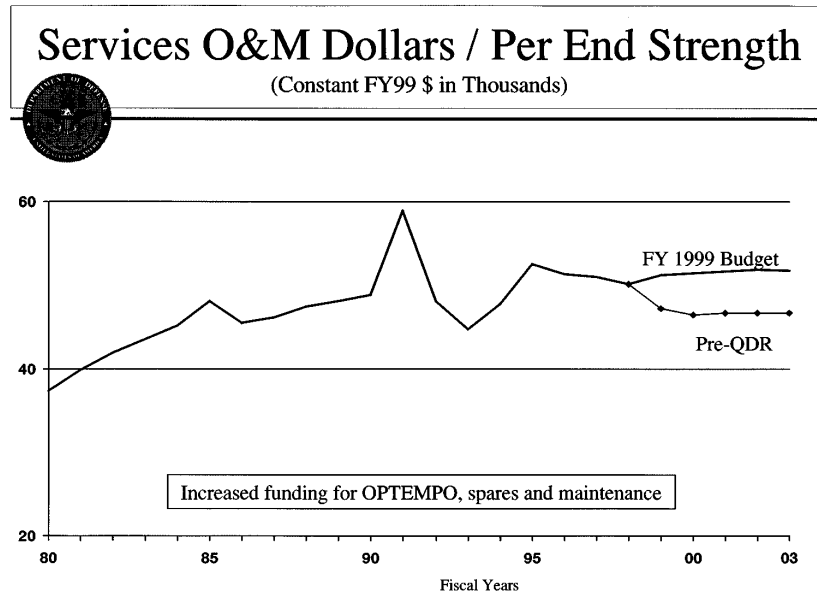
SPARE PARTS

A third area that I think we have real readiness challenges is in spare parts. Through your help—and frankly, it would be a lot harder this year if it had not been for your help last year. We asked you to provide an extra \$600 million for spare parts for the Air Force and for the Navy, and you did that, and I thank you for it, because if it had not been for that we would have a much more serious problem in spare parts this year.

Based on that, we added an extra billion dollars this year for spare parts for the Navy and for the Air Force. Part of this is we are operating older fleets. These air fleets are now starting to age almost year for year because we are not buying sufficient numbers of replacement aircraft, and older things take more maintenance every year. And our models were not properly calculated to capture the cost of this aging inventory. So that was a big reason why we were falling behind.

You helped us get caught up on that, and you will see in the chart in just a minute we have added a fair amount of money in O&M to try to avoid those kinds of readiness problems.

But let me show you the next chart, actually, that paints that picture.



OPERATION AND MAINTENANCE [O&M] FUNDING

A year ago our budget was on that lower blue line on the right, where it says "Pre-QDR," quadrennial defense review. That is where we had planned on budgeting. And what I am showing you here is O&M dollars by end strength, so I am trying to normalize for changes in force structure.

As you can see, we have added a fair amount of money to get us back on a trend line to support readiness in the out-years. So we recognize that this is something we are going to have to watch and monitor very closely.

Next chart.

CONTINGENCY FUNDING

Extend Bosnia operations beyond June 1998
Propose emergency supplemental for fiscal year 1998 and fiscal year 1999 costs (being developed)
Additional fiscal year 1998 funds for Southwest Asia
Rapid approval essential to protect readiness

CONTINGENCY FUNDING

On contingency funding—and Senator Domenici initiated this—the President has decided and NATO has asked that we extend in Bosnia past June. We will be submitting, I believe on Monday—we are submitting to OMB by Friday, I believe—our estimates of the supplemental costs for Bosnia. We hope to be able to get it by Friday as well for Iraq. We will be submitting that to you, I hope, by the end of next week.

What we know now for the Bosnia operation, to extend through fiscal year 1998 is probably going to be around \$600 million. It will cost us about \$600 million more for Bosnia in fiscal year 1998, and we will have to be asking for help on that as an emergency designation. That does begin the process to finally bring us down to the new levels, to 6,900 personnel in Bosnia.

For Iraq, I know everybody is questioning where are we on Iraq. All I can tell you right now is that I know what the costs are associated with the actions that have been taken to date, that is to deploying the extra forces over there, to put the extra carrier there, to put in the brigades and that sort of thing. Right now we have either spent or committed ourselves to about \$600 million more.

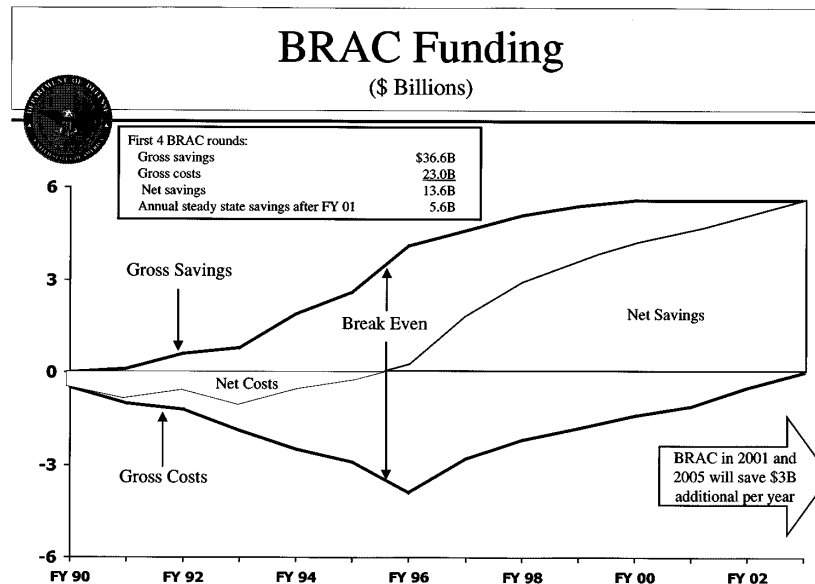
The question that we face is what do we do at this stage, and are we going to keep that force at this level? Obviously, we see the agreement that has been initialed by Iraq, but I think, as the President said and I think most Members of Congress have said, we have to see the proof in the pudding. We want to see if that is going to be honored or not.

So we are going to be keeping those forces in theater for a while longer. There are some important policy decisions that are underway right now to decide how much longer and at what level, and that will ultimately decide what the level is we will ask for your help. Hopefully, we will get that next week.

May I just ask—and I know how pressed you are going to be, but it is very important, if possible, to get passage of a supplemental by the first part of April. It is I know very difficult to do that, and I know you have got other challenges with the IMF issue on your plate, and I know that there is the U.N. arrearages issue that is on your plate. Obviously, now with the tornadoes in Florida there will be some real challenges.

We are right now borrowing against our fourth quarter optempo funds to pay for the situation in Bosnia and Iraq, because we have told people not to change their training program because we intend to ask for a supplemental to get additional funding. So we really do need to secure that, if possible, by the first part—by the end of the second quarter, which would basically be April 1, if that can be possible.

Next chart.



BRAC FUNDING

Senator STEVENS. We are not even going to get that until the week after next, as I understand it?

Dr. HAMRE. I believe they are going to try to get it up to you by the end of next week, sir. That I believe is the goal. So that gives 4 weeks to review, and I know that is not a lot of time. But we will bend any effort to provide any information that people need to try to review it during that period.

May I show you—as you know, the Secretary has asked for two more rounds of BRAC. I know there is no more controversial issue that I could bring up than BRAC, but I did want to put before you what has been our history with base closures so that you have a chance to see. We genuinely are saving substantial sums from the four rounds of base closures.

The heavy green portion shows you the net cumulative savings that we have achieved from the four rounds of base closures. And as you can see, by 2002 we will be saving annually \$5.6 billion. The green line on the top is how much we are saving each year and the red line is how much it costs, and it has cost a lot of money to move things around and to modernize facilities. But the net savings are positive, they are occurring right now, and it is substantial savings. It is 5.6 billion dollars' worth of savings by 2001 and from that point on.

We are asking for legislation——

Senator BUMPERS. Is that on an annual basis, Dr. Hamre?

Dr. HAMRE. Yes, sir, that is the annual savings, \$5.6 billion a year.

We will be asking and we are asking legislative authority to have two more rounds of base closures, one in 2001 and another round in 2005. Of course, we are dependent on your sufferance to do that.

We understand that. But it is so very important for us to be able to shrink that infrastructure. But again, I understand this is very controversial.

Next chart.

PERSONNEL						
[End strength in thousands]						
	Fiscal year 1998	Current end strength fiscal year 1998	Fiscal year 1999	Fiscal year 2003	Additional reductions	QDR goal
Active Military:						
Army	492	488	480	480	.....	480
Navy	396	387	373	369	.....	369
Marine Corps	174	173	172	172	.....	172
Air Force	377	372	371	344	— 6	339
Total Active	1,439	1,419	1,396	1,366	— 6	1,360
Selected Reserves	920	886	877	837	— 2	835
Civilians (FTE's)	786	770	747	672	¹ — 32	640

¹ These additional reductions will result from further A-76 competitions proposed as part of the Defense Reform Initiative.

PERSONNEL END STRENGTHS

These are our personnel strength levels. I do need to point out one thing particularly and that is if I might bring your attention to 1998, the column that I have in the red box. The reason I have to point that out to you is those numbers that were stipulated in that column were actually mandated in the authorization bill, which was passed last year after you passed the appropriations bill. You did not appropriate enough money to maintain these force levels. You actually appropriated what we asked for. But we were directed in the authorization bill to maintain more forces than we need.

So we are being forced to divert between \$100 million and \$200 million to cover more forces than we need by the authorization act. So I just want to point out, we do not yet have a basis for covering that, but that is going to be something we are going to have to do during this year. It will probably be the subject of a reprogramming later in the year.

Next chart.

RESERVE COMPONENT INITIATIVES

Process

Reserve Components play greater role in budget process
2 new major generals to advise Chairman, JCS

Resources

Increased OPTEMPO funding
Higher Reserve Component equipment spending

New missions

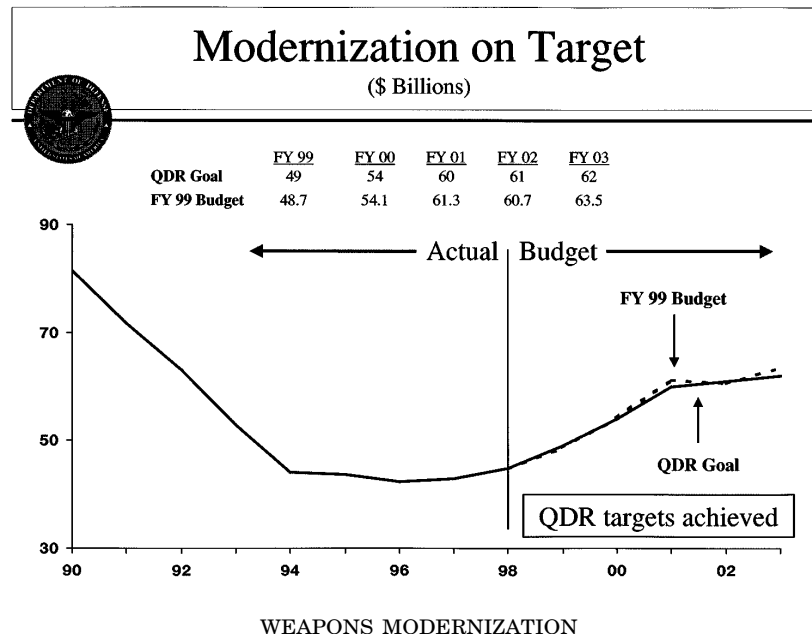
Respond to domestic use of weapons of mass destruction
Redesign to increase combat service support

RESERVE COMPONENT INITIATIVES

On the issue of Reserves—and I know that there was a great deal of controversy up here in Congress last year on the issue of Reserves, especially with the National Guard and the active duty Army. We have taken this very seriously. We cannot have a house divided. We need very much for the Army and the National Guard and the Army Reserve to be working together, and we have taken a lot of steps to try to correct that problem.

We have brought in the Reserve components this year as we never have before into the budget process. This year I made sure that each of the Reserve component chiefs sat in our DRB's to go over our budget with us. This year, for the first time in the five budgets that I helped build at the Department, the first thing on the Army's list when they wanted an add-on was actually for National Guard optempo this year, and we put additional funds for National Guard optempo.

This 5-year plan adds \$2.5 billion for equipment for the National Guard for the division redesign. So we have made very substantial efforts to try to address the problems that were I think underlying the dispute between the Army and the Army Guard last year, and would ask to have a chance to talk with you in greater detail about that during the year.



On the issue of modernization, the Secretary made a very high priority on trying to stay on that ramp. You will recall the last 3 years, every year we gave you a forecast of increasing spending in the out-years, and we never made it. This year we are on the path that we outlined this spring and, as you can see at the right-hand side where it talks about the budget, the solid line and the dashed line, they overlay each other.

The solid line is what we said we wanted to do in the QDR and the dashed line is what we achieved and have submitted to you in the budget. And we have made our procurement goals. We are going to get up to \$60 billion by 2001 with this budget plan.

Senator STEVENS. Let me make sure I understand it before you leave there.

Dr. HAMRE. Yes, sir.

This is what we had said we wanted to achieve in the quadrennial defense review when the Secretary did it back in May, and this is the budget we are submitting to you. We fell a little short in 1999, about \$300 million short. Last year we fell about \$4 billion short in procurement compared to our forecasts. But we made it in the out-years, with the exception of \$300 million short in 1992. But basically, this year we were able to sustain the modernization plan that we had forecast.

Senator STEVENS. Well, I hate to put it this way and sound political, but you are assuming the administration that comes after this one is going to be a lot more favorable to defense than you have been. That is a tremendous increase if you look at it. It is going from \$54 billion to \$61 billion, and then there is another \$3 billion in there. We are talking about an increase of \$19 billion over this year's budget.

Dr. HAMRE. Senator Stevens, we are doing this, but it is inside the top line, inside the balanced budget agreement top line that we reached between the executive and the legislative branches. So we think it is sustainable. We hope we can do it.

And it is solidly priced. I would say I think there is a good program here, and it is in detail in the FYDP we submitted to you.

Senator STEVENS. I would be a lot more confident if that curve was up there right now.

Dr. HAMRE. Yes, sir, I would, too.

Senator STEVENS. Thank you.

RECRUIT AND RETAIN QUALITY PEOPLE

Compensation: 3.1 percent pay raise
Commissaries: Increased funding and returned to Services control
Medical: Increased funding and Medicare subvention pilot
Housing: Privatization used to leverage housing budget

Maintaining high quality people critical to Joint Vision 2010

RECRUIT AND RETAIN QUALITY PEOPLE

Dr. HAMRE. Finally, on our people. And, of course, this always is our first priority when we build a budget. There is a 3.1-percent pay raise for the troops in 1999 and the full legal pay raise throughout the FYDP. We have fully protected the commissary benefit, and we have returned the management of the commissary system back to the services, so that they now are the board of directors for the commissaries.

Last year when we gave you our budget we had a hole in our medical program and this year we have added about \$2.5 billion across the FYDP to plug that hole. So I think that this year we are not going to give you a broken program with medical. There is a minor issue, about \$30 million, but this year I think it is not broken like it was last year. We have a better Comptroller this year.

Finally, on privatization for housing. I will be honest to say I am disappointed with our numbers for housing. We are not doing an adequate job in building housing, replacement housing for the military. Frankly, we cannot do it without the privatization program and authorities that you gave us, so we need to build on that. But it is not adequate even at this level.

Last chart, Bob.

SUMMARY

Balanced QDR strategy of shape, respond, and prepare drives fiscal year 1999 program
Readiness and force structure depend on DRI proposals to reduce overhead
Modernization targets achieved
Joint Vision 2010 concepts exploit RMA
Treat people as our most important asset

SUMMARY

Finally, I think what we are submitting as a budget, it is capped by the dollars that were in the balanced budget amendment. We think it is a balanced program, and it is a program that grows out of the strategy that was developed by the Secretary this spring.

Obviously, it depends on getting supplemental funding to pay for the ongoing operations in Bosnia and Iraq. We cannot hold the program together without that. We will have very serious readiness problems. We already have significant readiness challenges. We will have very serious readiness problems if we do not get supplemental funding.

We think that we are able to sustain the modernization program because it is inside the overall targets. Finally, let me say, again, to say thank you to you, Mr. Chairman, and to all this committee for consistently being a bedrock support for the Department of Defense. I know that you are confronted by so many pressures, this committee confronts so many pressures, but that you have consistently been with the Department and with its personnel through tough times and good times. We are very grateful for that, and I especially appreciate being invited to come up today.

Thank you, sir.

BRAC SAVINGS—PERSONNEL CUTS AND ENVIRONMENTAL COSTS

Senator STEVENS. Well, thank you very much for being here. I cannot say that we are overly pleased, at least that I am overly pleased, with this budget as far as defense is concerned, because I see so many shortfalls right now, and I do not really know how we are going to correct those without money. Hopefully, we will get into some discussions later about how much will be involved in the emergency part of the supplemental.

You think we will get that by next Friday?

Dr. HAMRE. Sir, as a matter of fact there is a meeting going on at 4 o'clock today to work out the final details. Everybody's plan is to have it up to you by the end of next week, yes, sir.

Senator STEVENS. Well now, tell me. A significant portion of that green you had up there was savings in people, not in operation of bases, was it not?

Dr. HAMRE. A lot of it was people, yes, sir.

Senator STEVENS. You could save that—that does not come from closing bases. That comes from discharging people, not reducing end strength, right?

Dr. HAMRE. Sir, I will have to give you a breakout as to what portion of that was people and what part is actually overhead and O&M dollars that go with facilities, and I will be glad to do that.

[The information follows:]

Sir, as I stated the bulk of the net savings from BRAC depicted in the green shaded area of my slide is related to the elimination of military and civilian personnel. Between fiscal year 1996 and fiscal year 2002, the Department estimates that it will generate net savings of about \$17.5 billion. Of this amount, we estimate that 60 percent, or about \$10.5 billion, can be attributed to BRAC savings from the elimination of personnel. These BRAC savings exclude savings from force structure reductions that would have occurred with or without BRAC. The personnel that have been eliminated here are directly involved in base operations support (BOS). BRAC savings can be grouped into those that recur and those that are one-time savings. The vast majority of BRAC savings are recurring, i.e., they represent a permanent,

ongoing reduction in planned spending. Personnel positions eliminated through BRAC are an example of recurring savings. One-time savings do not recur year after year. For example, the cancellation of a planned construction project would represent a one-time saving. Over time, the value of recurring savings is the largest and therefore most important component of BRAC savings. While the exact number of positions eliminated by BRAC is subject to some uncertainty, I believe the savings estimates related to personnel reductions are reasonable.

Senator STEVENS. Now, are the accumulated environmental costs for the bases that have been closed, are they quantified in there?

Dr. HAMRE. Sir, what I showed you were the annualized costs of environmental cleanup, but not the full liability associated with cleanup of those bases. Some of those liabilities will go out for some time into the future.

Senator STEVENS. I am told the environmental cost deficit is greater than the savings so far.

Dr. HAMRE. Sir, the environmental costs are there whether we close the base or do not close the base, because of the liabilities to clean it up if we are there or not there. What we budget is showing you the annual increment, and I have showed those on a net basis, but just for what we have been spending in those years for the cleanup.

But the environmental bills are large, yes, sir.

Senator STEVENS. Well, I am not going to argue that, but I do think that some of those costs do not really occur until there is a thought to turn it into a nondefense activity, at which time there is an obligation to clean up the environmental accumulation of years of use as a military base. But those, we are not cleaning all of those up. We are making them habitable and eliminating the hazardous environmental concerns, but we are not really restoring the soils and all that throughout the bases that are continuing to be operated. Am I wrong?

Dr. HAMRE. No, sir, you are not wrong. When we transfer a facility, we will probably have a negotiated arrangement for the continuing cleanup, for example, of a subsoil pollution source, that we will continue to do even after the transfer, and will bear the responsibilities for doing that. The costs for that will go beyond the 5-year plan that is shown here.

But in many cases we will have the cleanup accomplished before it is actually turned over. Most cases not.

NATO EXPANSION COSTS

Senator STEVENS. As far as I am concerned, the jury is still out on NATO expansion. I do not think that there are many that still share my views on that, but I understand you have a \$400 million cost now for 10 years for the portion of the NATO costs and that is all it is. It is down from over \$100 billion to \$400 million?

Dr. HAMRE. Sir, we submitted an analytic study that outlined what was the hypothetical cost associated with NATO expansion, and I think it was something like \$27 billion in our estimate.

Senator STEVENS. That was yours. There was one that was over \$100 billion.

Dr. HAMRE. Yes; CBO had a great big one. I think ours was something like \$27 billion. There were a number of things that differ here. One is at that time that study assumed that there were four countries involved. It was not based on any detailed engineer-

ing or detailed inventory of the state of the facilities. It basically assumed we had to build brand new facilities in these new countries, which it turned out we did not have to do. It also had some operative assumptions about that their command and control was going to have to be totally replaced and we would have to buy all new things, that sort of thing.

This new estimate, which is the \$1.5 billion, of which the United States share is \$400 million, that is based on a fairly detailed study that NATO conducted, looking at each country, looking at each installation, looking at all of their command and control systems, and finding out what genuinely has to be bought new. And our cost share would be about \$400 million.

We would be glad to provide that to the committee and to go through it with anybody to evaluate it and assess the underlying assumptions and numbers.

Senator STEVENS. The Secretary told us that the details of the costs of NATO expansion would be available to us long before the vote on the NATO enlargement, and now it seems that you are relying upon a NATO analysis rather than your own. You are throwing out your own that was \$26 billion over 10 years and taking theirs that says \$400 million over 10 years.

Dr. HAMRE. Sir, the study that we did that said \$27 billion or whatever the number was was an analytic study that was done totally independent of being on the ground and looking at real facilities and knowing what had to be done. So I will get the study up to you that shows what this \$1.5 billion is comprised of and why, frankly, why it does differ. And we are glad for it. We would rather not have to replace runways or buy new communications systems if there are things in place now that are adequate.

A NATO team did that survey and we are taking that as being right. We did have team members with them on it.

Senator STEVENS. Do we still pay 26 percent of NATO?

Dr. HAMRE. Yes, sir.

Senator STEVENS. So that means that that is roughly one-quarter of the total cost of the expansion of NATO?

Dr. HAMRE. Yes, sir, the \$400 million would be roughly one-quarter.

Senator STEVENS. From their point of view, from the NATO people, analysts' point of view?

Dr. HAMRE. Yes, sir. Yes, sir.

Senator STEVENS. Well, then I assume there would be no opposition from the administration to my reservation on the treaty that will say that there will be no increased cost of maintaining our involvement in NATO from this enlargement?

Dr. HAMRE. Sir, forgive me for not being in a position to speak for the administration on your reservation.

Senator STEVENS. I understand. I did not expect you to answer, John, but I just think somehow or other—

Dr. HAMRE. Yes, sir.

Senator STEVENS [continuing]. I think their computers must have been set to go to zilch in 1998, not the year 2000.

Well, I have got some other questions to answer. I am really not going to get into the Iraq thing. I think we ought to wait for the basic information that is going to come with the supplemental.

COST CONTROL AND EQUIPMENT NEEDS OF CINC'S

I do have one problem, though. As we have traveled around the world—and we do travel excessively, my friend and I, and some of the others, too—I think that the CINC's still have no real cost control, on the one hand. On the other hand, the CINC equipment is deteriorating and I am not sure they are getting the priorities they should have with regard to new systems, such as new aircraft, particularly in the Pacific.

Are you supporting any new aircraft for CINC's this time?

Dr. HAMRE. Senator, I wish I had prepared more fully. I do recall we had a program that was basically going to use some older 135's. I think that that program has been rejected, and I think we are looking at new aircraft. But I do not know exactly what we are looking at. Can I get back to you on that?

[The information follows:]

Senator, the Air Force has a plan that utilizes both new aircraft and existing KC-135R aircraft. The KC-135R aircraft will be modified to accommodate unique CINC requirements for secure communications and have some modest interior improvements. The Air Force is working closely with the CINC's to satisfy their support concerns.

Dr. HAMRE. I just want to lead that into this request to you. I saw your comment in your presentation about the privatization for housing. I would like to follow that up with a concept in this bill this year of privatization for noncombat equipment to the extent that it is possible. That is particularly true with transportation for the CINC's, transportation for the—what do they call it, the executive fleet? The 89th Wing. And I think we have got some other areas where we can experiment on privatization.

I believe that the new leasing companies that are there on a global basis are capable of providing a substantial advantage to the Department to lease vehicles. Even in a host country, for instance, we might be able to lease vehicles that are there and not have to transport them over. I think we have to start looking for some savings at every corner, and the privatization angle has a lot of appeal right now to help us get over this crunch in the O&M accounts. So I would urge you to look at it and if you have any further comments to make about that as we go along, we would like to work with you on it.

Senator STEVENS. Senator Inouye.

NATIONAL GUARD AND MILITARY CONSTRUCTION

Senator INOUE. Thank you.

I am certain the Senator from New Mexico will be asking questions on Bosnia and the supplemental, and I am certain the Senator from Texas will be touching upon recruitment and readiness. I would like to touch upon the National Guard and military construction.

Up until recently, it has been part of the tradition of the executive-legislative relationship that the Congress adds Milcon projects for the Guard, and very seldomly requests came in from the Defense Department. Second, in recent times and in this presentation of yours we have added new missions to the Guard, one a very important one on how to cope with the potential threat of biological

and chemical weapons that may be easily carried into the United States, and we have told the Guard that it is your mission to protect us.

Yet, if you look at the budget there is almost nothing for Milcon for the Guard. Now, if we put in and initiate projects for the Guard and the administration's policy is that the line item veto will be used for those projects that have not been requested by the administration, what happens to the Guard?

Would you support us if we put in projects for the Guard, though not requested by you?

Dr. HAMRE. Sir, we have I think a sad history of asking for Milcon for the Guard. As I say, I am a Lutheran by background and we have it good: We like to sin and God likes to forgive, and it all works out real good. It is a little bit how we deal with Milcon. I mean, we decide not to ask for money and you like to give it to us, and both sides feel pretty good about that. That is historically what we have been doing.

We are now at a point where we cannot do that any longer. The top line is fixed and everything now is being traded off. We need to be embracing Guard Milcon requirements just as sincerely as we embrace active duty Army Milcon requirements. We have not had a history of doing that, and we need to start doing that.

We tried very much to do that for their modernization program this year, and we did indeed move \$2.5 billion into the Guard for equipment. But we have not done a good enough job on Milcon and so we have to correct that problem.

Sir, on the issue of weapons of mass destruction, again we listened very carefully to what you and other Members of the Congress were telling us and tried very much to embrace this. This budget proposal adds \$49 million to start developing a quick response program for Guard units so that they can quickly come in to augment, not replace local responders, not replace the fire department or the emergency response teams, but to quickly augment them, to come and bring in biological detection equipment, to bring in chemical detection equipment, to be able to do early diagnostics, to get there within 4 hours and be able to help the local early responders so they can get ready and cope with an emergency.

We have added \$49 million this year and altogether about \$250 million over the 5-year plan.

Senator INOUE. But there is no Milcon in there.

Dr. HAMRE. But there is no Milcon in that, sir, because that was off of existing units and existing organizations.

But I take your criticism very seriously and you are right, we need to be doing a better job on treating Milcon for the Guard. It is especially hard, as you say, when we talk about not having add-ons that are not in the 5-year plan. If the Guard is not in the 5-year plan, then they get cheated. It is a double hit. So that is why we had to develop—we had to make a very concrete effort to try to get them included at least on the equipment side in the 5-year plan, and we will have to do a better job on Milcon, too.

Senator INOUE. Maybe we should have a conference where we can tell you what we would like to put in and you say OK.

Dr. HAMRE. Sir, I am at your disposal. [Laughter.]

CONSEQUENCES OF BRAC DISAPPROVAL

Senator INOUE. Well, I am aware that you are counting on BRAC as part of your budget presentations. But what will you do if BRAC does not get approved?

Dr. HAMRE. Sir, we are counting on BRAC. Of course, inside the 5-year plan that we are presenting to you BRAC has virtually no savings; it only has costs, because the first round of BRAC would only occur in the year 2001 and the costs associated with that first round would be in the 5-year plan, but virtually none of the savings. So we would get the anomalous condition where if you say no to us on BRAC we actually get a slight benefit in the short term; in the long run, we lose the purchasing power that it is going to take to support facilities we do not need.

We are still going to have to address excess capacity somehow. We have got to get our hands around that problem. We have got too much capacity. We believe honestly that BRAC is the fairest way for everybody because it is out in the open, there is an explicit process, it is evaluated on the merits, people can look at it and debate it and discuss it. And if there is dissatisfaction with the way that BRAC proceeded this last time, Congress should change the rules. You can change the rules on how BRAC would proceed, and we would honor that.

But we do need to tackle the excess infrastructure, the excess bases, and that is why we would be delighted to sit down. And if there is another way that we could do BRAC or an improved way to do BRAC, we would be glad to work with you on that.

Senator INOUE. Can DOD on its own initiative close bases without going through BRAC?

Dr. HAMRE. Sir, DOD has—yes, we can, but there are all kinds of laws and rules and regulations that govern any closure of an installation. For example, what BRAC basically did was let you clear some of those hurdles on a wholesale basis rather than a retail basis. So for example, environmental impact statements, things of that nature, we would have to go through. It is a cumbersome process, but yes, we can do that.

Senator INOUE. Some have argued that DOD should bite the bullet and do that job, instead of hiding behind BRAC. For example, there is no question BRAC may be open, but it is subjected to lobbying that makes our lobbying seem very small and slight.

Dr. HAMRE. Yes, sir, I understand.

Senator INOUE. You might have members in there that are already inclined to close bases in Texas and California. Some believe that is what happened and we had to come back to rescue you. Now, that process in the eyes of many seemed to be a bit tainted. It might be a bit more honest if we dealt eyeball to eyeball with you. That is just one thought.

Thank you very much.

Dr. HAMRE. Oh, good, I do not have to answer that. [Laughter.]

Senator STEVENS. I do not think anyone can really answer that now.

Senator Hutchison.

Senator HUTCHISON. I think it was a very good point, however, Senator Inouye. I certainly saw more lobbying there than I have seen anywhere in Congress.

I would like to—I am going to go on the same line that Senator Inouye did on another readiness issue, and then I want to ask you on the bigger picture.

SAC HEARING ON SUPPLEMENTAL

But I want to ask the chairman a question first. Are we going to be able to have hearings on the supplementals, particularly the Bosnia supplemental, so that we will be able to discuss the whole policy in Bosnia for which the money will be spent?

Senator STEVENS. It would be my feeling we should have hearings. But in all probability the hearings on the supplemental will be by the full committee, because it will contain more than just items for this subcommittee. That will be a difficult decision to make, but I want to talk to Senator Inouye and Senator Byrd about that.

I do believe all members should be involved in the review of the supplemental.

Senator HUTCHISON. Well, I do not have any suggestion on whether it be the subcommittee or the full committee, but I do think if you are saying, as the President is now, that we are going to have an unending commitment in Bosnia, then you come in with supplementals rather than putting it in the defense budget, I think we need to know exactly what the plan is. So I am hoping we will have those.

Senator STEVENS. Fiscal year 1999 is not considered emergency. Only the fiscal year 1998 is considered emergency.

Dr. HAMRE. Right. And for 1999 we will be actually submitting details of that as well by the end of next week. So we will have both 1998 supplemental and 1999 budget amendment, I guess as we would say it, or using this allotment that was set aside to cover for Bosnia.

Senator STEVENS. Mr. Cortese reminds me, we do have a hearing scheduled on the 1999 Bosnia. My answer to you was concerning the supplemental for Bosnia and Iraq and the other matters that would be in the supplemental. There are some nondefense matters in the supplemental.

Senator HUTCHISON. Well, I just want to make sure that we have the opportunity to have congressional input on Bosnia at the appropriate time. And I think a hearing is going to bring out what the plan is, and I am looking for a plan on Bosnia and I am looking for an exit strategy if this is going to happen.

STATUS OF PRIVATIZATION IN DOD

Let me ask you—one of the readiness issues besides BRAC is privatization. We have heard from every expert in the Department of Defense, from the Vice Chairman of the Joint Chiefs, the Chairman, the chiefs of each service, the Secretary of Defense, the Deputy Secretary of Defense before you, that privatization is one of the key ways that the Department of Defense can save money and use that money for other operations that are necessary.

What is the status of privatization? Are you satisfied with it, and what do you think needs to be done to allow that money be used in the best and most efficient way?

Dr. HAMRE. Senator Hutchison, I presume you mean in this case privatization as things that we are currently doing, not the housing privatization, but the ongoing work, for example, in DOD, putting it in the private sector?

Senator HUTCHISON. Yes; well, actually you could speak to all of it.

Dr. HAMRE. OK.

Senator HUTCHISON. But I was thinking of the privatization of maintenance, however.

Dr. HAMRE. Yes, yes; the budget that we have submitted assumes that we are going to compete for privatization—it is not automatically privatizing, but using the A-76 process to compete for privatization—150,000 jobs. Now, we are assuming that we will save \$2.6 billion through that. Let me explain briefly how we do that.

A-76 PROCESS FOR COMPETITION

The A-76 process—and I will come back to that in a minute—it is very cumbersome, but it is designed to give a fair, level playing field, private sector-public sector, to do work. There have been about 2,000 A-76 studies over the last 13 years. On the average, one-half of the time the Government has won and one-half of the time the private sector has won.

When the Government wins the competition, the savings have averaged 20 percent. When the private sector wins the competition, the savings averaged 40 percent. So there are enormous savings that would come from this competition.

What we did in this budget was we are assuming that we are going to compete 150,000 jobs, and we assumed that in every case the Government won, because that is the conservative assumption. So we took only the 20 percent savings against that work base, the 150,000 jobs. I actually think it will be larger than that, but what we have actually put in the budget is \$2.6 billion. That is the annual amount that we save.

This is going to be a challenge, frankly, because we will be doing more A-76 privatization competitions this year than were done in the last 10 years combined. There is a tenfold increase in A-76 competitions between 1996 and 1997. Frankly, in some places we have had to relearn the process because it lay fallow.

I think I am encouraged. We have had several detailed meetings with the services and I am very encouraged. I think that we are going to make this work.

Senator HUTCHISON. Do you have enough flexibility under the law as it is now to do everything that you feel you can do in this area?

Dr. HAMRE. I think that there are definite constraints in the A-76 process, and I am not here to litigate the process. But it takes almost 2 years to conduct a competition. It is enormously intensive, labor-intensive, to conduct a competition.

I think also we need to have a process where we do a better job of evaluating the proposal before we submit it, because too often we

have organizations that do not want to lose their jobs that get to design the competition. Well, you know, there is an incentive not to design it in a way—or to design it in a way where it is harder for industry to win, the private sector to win. We need to change that.

I also think there are an awful lot of work practices that cut across multiple organizations, and the A-76 process is really designed to work inside a single organization. So we need some changes here.

Senator HUTCHISON. That is what I was trying to find out. You do need changes in order to make sure you can achieve the savings you need to come within this budget?

Dr. HAMRE. Ma'am, I think most of them are things that we can do internally. But I will get back to you if there is something that we think we need either legislative or regulatory relief.

RESTRICTIONS ON DEPOT MAINTENANCE PRIVATIZATION

Senator HUTCHISON. Well, does the 60-40 rule, that is now 50-50—

Dr. HAMRE. Well, that is a different matter. That is a very different matter, because that is not governed by A-76, and that is enormously more complicated.

Senator HUTCHISON. Do you think that is an artificial restraint—

Dr. HAMRE. Oh, yes, ma'am.

Senator HUTCHISON [continuing]. That will keep you from being able to do the privatization?

Dr. HAMRE. Oh, absolutely. I think that the 60-40, now 50-50, rule definitely makes it harder to hold competitions.

Senator HUTCHISON. Do you think that you have the same accountability in a public sector contract that you do in a private sector contract?

Dr. HAMRE. Let me try redefining your question and then I will try to answer it, and maybe I got the right question or not. Is it possible for a Government proposal to have the same set of liabilities and obligations as a private sector proposal? No; in the sense that we can impose—you can impose a fixed price bidding requirement on the private sector and you cannot really impose that on the Government. By definition, Government proposals are almost cost-plus.

So you have to really develop other means to try to get the fiscal discipline associated with the bid in the public sector. We are trying to do that where we can.

Senator HUTCHISON. Well, I just hope that you will let us know what you think would help make this more efficient and get the savings, but keep the readiness that we all want to preserve; and second, that you will work to maintain at least what you have now and not have other restrictions placed on the ability to do the privatization if you are counting on it for part of the savings that would allow you to do your job efficiently.

Dr. HAMRE. Yes, ma'am. We are counting on it and we need it.

MISSILE DEFENSE

Senator HUTCHISON. Let me just ask one last question, and that is on—in your budget you have money for missile defense. One of the concerns that I and many others have had is that we have not deployed to the fullest the technology that would give us the missile defense systems that we need, either in theater or intercontinental. I want to ask you if you think that the Department is going to be able to move toward having the missile defense systems that we must have within this budget constraint—I think \$3.6 billion is what you have—and if we need to have changes in the ABM Treaty in order to continue to go forward for this missile defense.

I happen to believe the biggest security threat the United States faces is ballistic missiles, either into our country or into a theater where our troops are. I want to make sure that we are going full force with technology, and if we need to address the ABM issue then we need to do that.

So where are we with this \$3.6 billion that you have in your budget?

Dr. HAMRE. Senator, of course the \$3.6 billion here and the full funding throughout the 5-year plan we honestly believe brings forward the development of a national missile defense system, but not the procurement of that national missile defense system. We do not have procurement money in our 5-year plan for it, but we do have the development and the funds that are required if we do need to make the deployment decision to invest in it inside this 5-year plan.

I think that is properly funded. As you know, not all the testing has gone all that successfully in some of the programs and so we really are pushing them about as far as we can right now.

I think the real question you are asking is where is the procurement money, and that is again an issue that has divided the Congress and the executive branch for the last 3 or 4 years. We have moved a lot closer under Dr. Perry and under Secretary Cohen, because we now are funding the same development program. We are all seeking that same thing. We just do not have the funds to buy it inside this 5-year plan.

We do not think we need to make that decision right now. When we have to make that decision, we think we can and it will be under the same timetable, because we are developing it.

Senator HUTCHISON. To the fullest extent?

Dr. HAMRE. We think so. We think it is honestly paced by development risk, not by funding constraint. Now, I will go back to the experts and find out, to make sure that I am right on that. But that was as I recall it when we were building the budget back in December.

Now, as to your question about the ABM Treaty, it is my understanding there is nothing that we are doing inside this development program right now that requires us to change the ABM Treaty. Obviously, deployment is a different issue and I would have to come back to you with an answer on that.

Senator HUTCHISON. Right.

Thank you.

Senator STEVENS. Thank you very much.

Senator Domenici.

Senator DOMENICI. Thank you very much, Mr. Chairman.

First of all, it is good to be with you. Many of us have known you for a long time. You worked with a very good Senator for a long time.

Dr. HAMRE. Thank you, sir.

Senator DOMENICI. Our good friend Senator Nunn.

Dr. HAMRE. I got good training.

Senator DOMENICI. You got good training. We are glad to have you here and congratulations on your Deputy Secretary of Defense designation.

Dr. HAMRE. Thank you, sir.

Senator DOMENICI. I have two parochial questions and I will submit them separately.

Dr. HAMRE. Fine. I will be glad to—I will be responsive.

MORE FLEXIBLE CONTINGENCY FUNDING

Senator DOMENICI. Let me ask this question. Since we have been involved in Bosnia and contemplating getting involved in Iraq, I have been concerned about the fact that the domestic budget of the United States and all of its agencies are not bound to 5-year budget numbers, but the Defense Department of the United States is. It seems to me that for contingencies if any Department ought to be given some flexibility, it ought to be the Defense Department. We are learning more about that need for flexibility with every contingency that comes along.

It seems to me that either we provide more flexibility or we change our budgeting practices to provide literally for a rather significant contingency fund. The reason I raise this is because, I tell you the truth, as a matter of course the Chiefs come and see me one time in my office to talk about things that relate to my State, and I have been more impressed over the last 18 months with their genuine concern about the process of budgeting under their command.

I am concerned that they have to constantly move things around in this budget because they are now in Bosnia or about to go to Iraq. I just want to lay before you that I do not believe we ought to put that onus on military men, leaders of this U.S. Defense Department.

FUNDING CONSTRAINTS

I say that with even more assurance when I find that we do not bind any domestic Department to anything but 1 year, and somehow or another, even in so-called austere times, we find \$60, \$80, \$120 billion more to spend on domestic programs and not a nickel for defense. It is stuck with this 5-year number.

I am talking about the President's budget. I am not agreeing with his spending \$65 billion in cigarette settlement for 12 new programs, but he found it. He found some money to spend. And yet we are up here asking for emergency money for the Defense Department of the United States to break their cap in a legal way.

So I just want to lay before you that I believe the ultimate job of a good Comptroller is to try to give these Chiefs and the Joint Chief of Staff more assurance that they do not have to be so clair-

voyant and so certain that 3 years from now they are still bound by something they said before the world changed. Frankly, I do not know how they can do it myself, with technology changing like it is and all the needs and demands. We are asking for multiyear budgets, but 5 years is a long time.

I guess the other thing I would ask you is, do we stick the number before the Chiefs or do we ask them what they need? I think that is a very important question. We have numbers. Now, do we ask the Chiefs when they prepare their quadrennial or whatever, do we say, what do we need to keep the men and women satisfied in this All-Volunteer Army? They have got to work, they have got to be trained, we need R&D. Tell us what we need? Or do we say: That is the number, \$268.3 billion; live within it. Which do we do?

Dr. HAMRE. Sir, it is largely the latter, but we do try to accommodate the changes that we need to make on the margin. It tends to be on the margin. We basically give people a spending path and say, you need to develop and build a program to this path, but then on the margin tell us what more you need and in what areas.

So we try to do that. But in all honesty, it is within the constraints of the overall funding that we forecast is likely to be available. But we would have to do that. Otherwise we would get very distorted kind of plans if we did not, I think.

I understand the sincerity of your position, however.

Senator DOMENICI. I have not served in the capacity that I am around here not to know that any department of Government, if you ask them, what do you need? They will ask, what is available? And God knows where that ends up.

But I do think when you put a 5-year shackle around defense, with the kind of changes we are talking about, it is a pretty risky business when it comes to preparedness and contingencies.

FISCAL YEAR 1999 FUNDING ALLOWANCE

Now, I was going to ask you how much you are going to ask for for the buildup in Iraq, but I am not going to. I will wait until that comes up.

Dr. HAMRE. It will be there next week.

Senator DOMENICI. You did have a contingency fund of about \$3 billion in the 1999 budget, did you not?

Dr. HAMRE. Sir, I think it is called an allowance. It was a new term I had never seen before. But yes, there was a reservation of about \$3 billion, yes, sir, in 1999.

Senator DOMENICI. Could that be kind of the fund that I have been just talking with you about?

Dr. HAMRE. Yes, sir; that is exactly what I think it is best to use it for.

PRIVATIZATION AND DOD PERSONNEL CUTS

Senator DOMENICI. Now, let me ask another generalized question about the questions that my friend from Texas asked. I understand that if the privatization and contracting out contemplated in your budget do not work in whole or in part, that the military will be left with a situation where they were expected to have less end strength in personnel but no way to pay for them.

Dr. HAMRE. Sir, the budget that we put for privatization is really only on the civilian side, not on the military side. It does indeed assume that there will be a 20-percent savings against that 150,000 civilian jobs that we are competing. So yes, if none of it occurs then we would be short. But we actually think it is going to occur, and I have seen the planning for it. I actually think we will do a little bit better than that.

Senator DOMENICI. Now, there is no military end strength that is reduced by privatization or contracting out?

Dr. HAMRE. Sir, there might be some small examples, but the bulk of it is not. I mean, there are small cases, but most of it is on the civilian jobs.

Senator DOMENICI. Could you give us the specifics?

Dr. HAMRE. I surely will, yes, sir.

[The information follows:]

Sir, of the 150,000 full time equivalent positions that the Department intends to compete in accordance with OMB Circular A-76, we expect only about 20 percent to be military. The exact numbers are very difficult to accurately predict before the actual cost comparison studies are identified and announced. However, this year we will be conducting a Department-wide inventory of all civilian and military positions that will provide greater insight into which positions are inherently governmental in nature, which positions are commercial activities that are exempt from competition, and which positions are commercial activities that are subject to competition. This effort should improve the study identification process substantially.

Senator DOMENICI. So if one of the Chiefs says one of our most difficult problems is going to be the end strength contemplated by privatization?

Dr. HAMRE. I think there are end strength cuts that are independent of the privatization, and they may be confusing that, or I may not have understood your question. We have end strength cuts that are coming against military that are totally independent of the privatization goals on the civilian side.

Senator DOMENICI. Are they built upon some contingency or are they just what we are going to agree upon as an end strength reduction?

Dr. HAMRE. Sir, they were built on fairly detailed modeling that was done during the quadrennial defense review, where we looked through each of the forces. We have very detailed plans for all of that.

Senator DOMENICI. Would you give us for the record the end strength reduction, both civilian and military, in a summary?

Dr. HAMRE. Absolutely.

Senator DOMENICI. And tell us how we are going to get there?

Dr. HAMRE. I surely will.

Senator DOMENICI. What backs them up.

Dr. HAMRE. I surely will.

[The information follows:]

The QDR process began by developing an overarching defense strategy, and followed with assessments of the necessary force structure, readiness, and modernization that would be required to implement the strategy. The resulting program recommended by the QDR is based on: modest reductions and restructuring of our military force structure that will still meet present threats, adequate modernization funding necessary to meet future challenges, and a conscious decision to reduce infrastructure and support activities as much as possible. Initiatives identified during the QDR that will safely result in reduced infrastructure and personnel include re-engineering infrastructure to achieve better business practices, consolidating many logistics activities, reducing layers of management oversight at headquarters and

operational commands, and competing and privatizing infrastructure functions that are closely related to commercial enterprises. The Secretary has established the Defense Reform Initiative (DRI) and the Defense Management Council (DMC) to continue and monitor ongoing efforts to reduce infrastructure.

The approaches employed by the Services to effect personnel savings varied in accordance to their needs, their individual management structures, and their force structure requirements. The Army plans to restructure parts of its force to reflect increased efficiencies in support activities and in anticipation of further organizational change, including the redesign and downsizing of its heavy divisions as it integrates the results of ongoing warfighting experiments. The Navy plans to reduce force structure and retire surface combatants and submarines as newer and more capable systems are added to the fleet. The Air Force is consolidating its fighter, bomber, and theater airlift squadrons, increasing the number of aircraft in each squadron while decreasing the number of squadrons. It is also reducing intermediate headquarters to streamline its command structure, and will aggressively pursue infrastructure efficiencies.

The QDR reflected the following personnel reduction goals:

	Army	Navy	Marine Corps	Air Force
Active Military	15,000	18,000	1,800	26,900
Reserve Military	45,000	4,100	4,200	700
Civilian Personnel	33,700	8,400	400	18,300

INFLATION SAVINGS AND OUTLAY FORECASTS

Senator DOMENICI. My last question has to do with the savings on inflation rates being lower than contemplated in the previous 5-year plan.

Dr. HAMRE. Inflation, yes, sir.

Senator DOMENICI. Do I understand that in this budget you left whatever savings accrue from inflation reduction in the budget for the Defense Department?

Dr. HAMRE. Largely. We lost a little bit, but we largely were able to hold onto the inflation savings.

Senator DOMENICI. I congratulate you.

Dr. HAMRE. Thank you, sir.

Senator DOMENICI. I think it is high time that we not expect to swallow every bit of inflation savings that one contemplates. That too changes. You make them eat it all and then it changes back up again, and we are in another mess.

My last question is: CBO and OMB, which you are bound by, disagree on the cost of your program, of your budget that we are talking about.

Dr. HAMRE. Yes, sir.

Senator DOMENICI. Do you and CBO and OMB get together and try to analyze where those differences come from?

Dr. HAMRE. Sir, we try to. But this year we have not been given access to any of the details in CBO's outlay forecasts. They have not provided us anything this year.

Senator DOMENICI. Well, is that different than last year?

Dr. HAMRE. Yes, sir, it is.

Senator DOMENICI. Do you have any reason to suggest to us as to why it is different?

Dr. HAMRE. I do not know. As a matter of fact, I just learned that as I was getting ready for this hearing. I did not know that until today.

Senator DOMENICI. I think it would not be bad, Mr. Chairman, if we asked them, if we asked CBO and OMB to confer on these differences. They are giving us a \$4 billion thing that we have got to pay for because their number estimates are less.

Dr. HAMRE. We would like that.

Senator STEVENS. If they do not confer, we will get them both here at the same time, because we cannot make a choice between them.

Senator DOMENICI. Good.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you.

Senator Cochran.

Senator COCHRAN. Mr. Chairman, thank you very much.

I have a couple of questions that relate to research activities which I will submit for the record. If you will be kind enough to respond for our record, I would appreciate that.

Dr. HAMRE. Absolutely.

PROCUREMENT FOR MISSILE DEFENSE

Senator COCHRAN. Senator Hutchison asked you some questions about the ballistic missile defense situation and where we were with the administration's plan. I am concerned that you pointed out, and you had to, that there is no money in this plan really for procurement. The fact of the matter is that if we are going to develop a system that can be deployed under the so-called three-plus-three national missile defense program we are going to have to obtain some materials, long lead materials, at some point. It does not appear to be possible to meet the schedule of three-plus-three without some long lead equipment being purchased prior to a scheduled deployment decision in the year 2000.

What the administration I guess is assuming is that they will not ever get to there. It is kind of like the economist who says that the out-years—do not forget, the out-years never get here. So the administration is hoping, I guess, that they will not have to get to the point where they have to decide that they have to deploy.

Is that why we do not have to put any procurement money in the plan?

Dr. HAMRE. Sir, I think the administration's Three-Plus-Three Program, it is a rolling three-plus-three, and it is triggered by the concrete intelligence evidence that suggests we really have to do something finally. And we just do not see that right now. When that happens, we are always trying to be in a position so that we can reach out and get something in 3 years. So that is the basis of it. That is why there is no precise date when it has to be put in the budget.

Senator COCHRAN. Well, we have heard testimony from people like Lieutenant General Lyles, who calls the program extremely high risk. And I assume that means it is unlikely that we will reach the schedule or meet the schedule. I was wondering what your interpretation of it is.

One of the CEO's of the competitor companies for the national missile defense lead system integrator contract says that you cannot be ready to deploy for the year 2003 unless you have some long

lead equipment purchased prior to the scheduled deployment decision in the year 2000.

Do you disagree with those assessments?

Dr. HAMRE. What I have to tell you is I do not think I know enough to be able to answer one way or the other right here. As to General Lyles, I have talked with him several times and I think I always understood his assessment of the high risk was associated with bringing the technology on in this time period. But I will go back and talk with him about that, too.

Senator COCHRAN. Well, these are serious concerns and we hope that the appropriations that we are able to provide for this program permit us to be able to make a decision to defend the security of the country against ballistic missile attack if it does develop, as some think, that we are going to be confronted with that threat sooner rather than later.

SHIPBUILDING

Let me ask you this about shipbuilding. The Secretary of the Navy testified the other day before the Senate Armed Services Committee that the future years defense plan provides an adequate amount of support to meet the projected need of 300 ships for our Navy, but beyond that future years defense plan this rate of production that we have now will not permit us to maintain the required ship inventory.

What are we going to do about that?

Dr. HAMRE. We need to buy more ships. Right now we are able to take and sustain a 300-ship Navy because, frankly, we are still able to live off of the larger inventory we had from the past. But obviously, if we take the nominal service life of a ship is 30 years and you need 300 ships, you have got to buy more than 6 a year.

Senator COCHRAN. Right. You have got to buy about 10 a year.

Dr. HAMRE. Yes; I mean, we just have to buy more ships.

Senator COCHRAN. Well, I am hopeful that the committee will support a schedule of that size. I think it is certainly justified, and that is what the Secretary of the Navy said in his testimony, that the operational commitments undertaken by the Navy and Marine Corps today require a certain force level to satisfy worldwide presence missions. As we see the U.S.S. *John Stennis* steaming off to relieve the *George Washington*, Senator Lott and I gave the captain a U.S. Senate flag to carry on that mission. He said he would fly it while they were underway on the first deployment of the U.S.S. *John Stennis*. We are very proud of that.

We appreciate your assistance to the committee and your presence. We look forward to continuing to work with you, Dr. Hamre.

Dr. HAMRE. Thank you, sir. I am glad to be invited. Thank you.

Senator DOMENICI. Are you finished, Mr. Chairman?

Senator STEVENS. No; Senator Inouye had some questions.

Senator Inouye.

Senator INOUE. Thank you, Mr. Chairman.

SELECTIVE PRIVATIZATION

I would just like to make an observation. I realize that privatization has become a very popular concept because of possible savings that may come about. We speak about fiscal discipline. I am old

enough to remember an event that happened in 1941, and at that time when the bombs fell private workers who were doing construction work somehow did not report, but all of the Federal civilian civil service workers, they all reported to work, and many of them were casualties.

That is my concern. When they were doing privatization for men and women in uniform, you lost your operational discipline. Did you take that into consideration when you adopted privatization?

Dr. HAMRE. Sir, the 150,000 jobs that we are going to compete are those where we have done a fairly detailed analysis and believe these are really commercial-like activities. I personally believe that we can count on contractors to be with us if we have to. We had over 800 contractor tech reps in Bahrain during Desert Storm and they were under the same range, Scud range, as our active duty people.

We have to be sensible about it, of course, and there are things that you do have to have. I am a firm believer there are things you have to have Government employees do. And there are things that, as your fiduciary responsibilities as a Government, I think are a responsibility of Government. I would not contract out certain activities.

So we studied that very carefully. But there still is, I think, a fair amount of room for us to look at commercial-like programs, people for example who do payroll here in the United States, things of that nature. And those are the things that I think it is fair for us to look at.

Government may still win that competition. So we will see what the result is.

Senator INOUE. Thank you very much.

Thank you, Mr. Chairman.

Senator STEVENS. I have some questions, but do you have questions?

STATUS OF SPENDING RESULTING FROM VETO OVERRIDE

Senator DOMENICI. I just have one with reference to the veto override. You understand we have done that.

Dr. HAMRE. Yes, sir.

Senator DOMENICI. It is finished.

Dr. HAMRE. I surely do. That is why I did not think I would have to answer anything.

Senator DOMENICI. You understand that you are supposed to pay for those projects and programs now, right?

Dr. HAMRE. Sir, the money is out the door.

Senator DOMENICI. Now, we called up to find out where it all stood and we were told it is going to be a long, long time. Could we ask you how long it is going to take before some of these things we just put back in the appropriated cycle, how long it is going to take?

Dr. HAMRE. Sir, yes, I will call you back before the day is out. What I do not know is the technical process of the allotment process with OMB under a veto environment. But it is not going to take more than a day for us to get it through the Comptroller's office, I know that.

Senator DOMENICI. So the point is there will be no holdups because it is an override? You are full speed ahead?

Dr. HAMRE. Full speed ahead.

Senator STEVENS. Well, Senator, with due respect to you and to Dr. Hamre, there still is the rescission process, and I was told it might be considered. So let us not spend our money before we get it.

Dr. HAMRE. OK, I will go back to make sure.

Senator STEVENS. I hope it is not. I hope we do not have to run that route on this one. This was a sheer mistake and we have corrected it, and Congress has spoken twice now, three times on these.

Dr. HAMRE. Eighty votes does not look like a rescission margin to me.

Senator STEVENS. I have to tell you, it only takes two people in the Senate to say no to rescission, and that is me and Senator Byrd, and they are not going to come out of this committee on this bill. We have done enough on these now. We just do not have time to go back and live that thing again now, that is all. I hope that you will carry that message for us, doctor.

Dr. HAMRE. I shall.

Senator STEVENS. We have got so much going forward. If we have to do those projects again, it will just be wrong.

FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS
[FFRDC'S]

Let me ask you a couple questions. It is no secret what we have done about FFRDC's, and now I understand that the Department has decided that FFRDC's contract advisory and assistance services [CAAS] will be considered providers, and they are to be cut by 15 percent by the Department. Is that right?

Dr. HAMRE. Sir, you are asking me a question I do not know the answer to. I will have to find out. They will be, I am sorry, what providers?

Senator STEVENS. Do you know whether there is any moneys that are going to be reprogrammed to restore the fiscal year 1998 level of FFRDC's?

Dr. HAMRE. Forgive me, I will have to get back to you. I am not aware of that, but I will find out.

[The information follows:]

Senator, as you know, Section 8035 of the fiscal year 1998 Appropriation Act established limits on both the number of staff years of technical effort at Defense FFRDC's (6,206) and staff years for defense studies and analysis FFRDC's (1,105). Section 8035 also reduced the amount appropriated by \$71.8 million. In addition, the accounts funding FFRDC activities were impacted by the \$300 million reduction for Contract Advisory and Assistance Services (CAAS) in Section 8041. All RDT&E accounts, including those funding FFRDC activities, were also affected by the pro rata reductions directed in Sections 8043 and 8048. It is my understanding that the Military Departments used below threshold reprogramming authority (less than \$4 million) to fund some FFRDC efforts. It is not unusual for FFRDC taskings to be identified during budget execution which were not foreseen during budget development. However, I am not aware of any case where a FFRDC's fiscal year 1998 funding level was restored. The Department is executing the fiscal year 1998 program within all the staff year constraints established in Section 8035.

Senator STEVENS. I have a second question then. Will you give us an update on the current reprogramming regulations that would apply to the concept of FFRDC's? I understand that there is a pro-

cedure to make multiple reprogrammings to accumulate millions of dollars to restore the FFRDC's reductions. I would urge you to consult with us before you do that, because not only this committee, but the authorization committees, have reduced FFRDC's and particularly for this year.

Can you tell us what is projected for expenditures for each defense FFRDC for this year? Would you give us that for the record?

Dr. HAMRE. I surely will. I do not have it today.

[The information follows:]

Fiscal year 1998 projected expenditures for all DOD-sponsored Federally Funded Research and Development Centers (FFRDC's) Staff Years of Technical Effort (STE) is estimated at \$1,188,400,000. The following table provides projected funding for each FFRDC.

<i>FFRDC</i>	<i>Millions</i>
Studies and Analyses (S&A):	
RAND NDRI	\$23.0
RAND Arroyo Center	20.5
RAND Project Air Force	23.3
CNA	47.2
LMI	28.0
IDA-S&A	61.4
IDA-OT&E	14.6
S&A subtotal	218.0
Systems Engineering:	
MITRE	346.2
Aerospace	304.7
Systems Eng subtotal	650.9
Laboratory:	
MIT-Lincoln Lab	260.9
IDA-C&C (NSA)	32.8
SEI	25.8
Laboratory subtotal	319.5
Total for DOD FFRDC's	¹ 1,188.4

¹ Does not include the potential for up to an additional \$30,000,000 in new work resulting from funds added by the Congress for new programs and increases in ongoing programs over that requested in the President's budget. Specifics regarding new work was reported to the four Defense Committees by the USD(A&T) on March 7, 1998.

THEATER HIGH ALTITUDE AREA DEFENSE [THAAD] MISSILES

Senator STEVENS. We are talking about fiscal year 1998 now.

Dr. HAMRE. Yes, sir, I understand.

Senator STEVENS. Last, I agree with the Senator from New Mexico and others about the importance of the missile defense programs, but we are informed that the THAAD has missed four intercept attempts and the fifth one has now been delayed, not once, not twice, but three times delayed. In this request that is before us is \$180 million to purchase 40 of those missiles, and it is based upon a single intercept being successfully completed.

With that track record so far—and incidentally, we have a similar situation with the Patriot. Their design has been changed substantially since it did have an intercept, I guess two intercepts, and now there is going to be no further attempt to test it before we purchase 48 missiles at \$97 million.

We want the missile defense programs to go ahead, but is the Department really going to spend that amount of money on procurement before there is real assurance that the design and production model is capable and the right ones in each instance to deploy?

Dr. HAMRE. Sir, I do not believe that we have changed our policy goal of seeing a series of successful tests on THAAD before we obligate the money. I think we have been pretty aggressive in budgeting for procurement, but I think there is high risk in this area.

Senator STEVENS. I do not want you to misunderstand me. There is no committee of the Congress that is more interested in these missiles.

Dr. HAMRE. I understand very well.

Senator STEVENS. And as a matter of fact, I do not think Patriot would have become an antimissile missile if it had not been for this particular subcommittee. But we want the upgrades to be upgrades that have been successfully demonstrated before we put our money on the line.

Dr. HAMRE. Yes, sir.

Senator STEVENS. I hope that the Department will agree with that.

Dr. HAMRE. Absolutely. And I think we do have that as part of the—that we are not going to obligate it until, I forget what the series of successful tests. But I will find that out and report it to you.

[The information follows:]

THEATER HIGH ALTITUDE AREA DEFENSE [THAAD]

In accordance with the Milestone I Acquisition Decision Memorandum (ADM), two criteria must be satisfied prior to exercising the contract option for 40 User Operational Evaluation System (UOES) missiles: Hardware in the loop demonstration of guidance and control systems, and one body-to-body intercept using the THAAD radar.

Of these two criteria, a successful body-to-body intercept has not yet been achieved. It is still the Department of Defense (DOD) plan to exercise the missile option following a successful intercept. However, because each intercept test failure to date has had a different root cause and because of differences between the current test configuration and the UOES missile, there is concern within DOD regarding the risk of buying 40 UOES missiles on the basis of only one intercept. As a result of these concerns, DOD, BMDO, and the Army have agreed to revise the plan for exercising the option. Formal contract initiation is planned following the first successful intercept, but a phased implementation strategy that includes two interim progress reviews (IPR's) and a subassembly review will be pursued. The first IPR will follow the completion of flight test number 8 (FT-08), ground tests on the block upgrade (BUG) configuration, and a 60-day planning session. This IPR would give authority for partial contract execution to buy long lead items. A second IPR will be conducted prior to the full contract execution of hardware purchases. Finally, a Government subassembly review will be conducted following FT-10, if necessary, to review plans to complete assembly of the missiles. This phased approach limits government financial and technical risk by allowing additional ground testing and flight testing prior to purchase of all hardware components.

Senator STEVENS. I am told that the intercepts of the prior design for pack 3 are being used for now the purchase of a subsequent design that has not been tested.

Dr. HAMRE. Forgive me for not being current on that, sir. I will find that out.

Senator STEVENS. If you can let us know, we would appreciate it.

Dr. HAMRE. I will.

Senator STEVENS. But do not take it as any indication of an intent to delay that.

ADDITIONAL COMMITTEE QUESTIONS

We do thank you and look forward to working with you. I think it goes without saying that we are grateful to you for what you do to help us do our task.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTION SUBMITTED BY SENATOR TED STEVENS

FFRDC REDUCTIONS

Question. Secretary Hamre, can you provide the Committee with an update on the current reprogramming regulations highlighting the procedures which would allow the Defense Department to make multiple reprogramming to accumulate tens of millions of dollars to restore FFRDC reductions?

Answer. The Department has no intention of reprogramming tens of millions of dollars into FFRDC's. There are no recent changes to the reprogramming regulations. Current reprogramming regulations limit the amount of funding that can be added to any line item and the Department will continue to comply with the existing regulations. The Department has implemented the fiscal year 1998 Congressional reductions pursuant to sections 8035 (FFRDC reduction) and 8041 (Contract Advisory and Assistance Services). The impact of these reductions represents a "double cut" to the FFRDC community. Although the fiscal year 1998 reduction lowered funded technical staff years below the 6,206 level, the Department will attempt to execute the fiscal year 1998 FFRDC program at the fiscal year 1997 funded level. The Department will execute the fiscal year 1998 program within all the constraints outlined in Section 8035.

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

DEMINEING

Question. Mr. Hamre, recently the Defense Reform Initiative moved program management of the Humanitarian Demining Program from the Office of the Assistant Secretary of Defense for Special Operations/Low Intensity Conflict to the Defense Security Assistance Agency. Some reports on this change leave the impression that the program will no longer support research and development on mine detection technologies.

(a) Will this program continue to explore new technologies for mine detection?

(b) I understand that acoustic detection was among the research areas being explored under the program's prior management. Will that research continue?

Answer. (a) The Defense Reform Initiative had no impact on the OASD(SO/LIC)-directed demining technology research and development effort. In fact, the program has recently refocused its efforts on new mine detection technologies to more effectively support the needs and requirements of indigenous deminers. More specifically, aggressive projects are planned to focus on individual deminer protection and enhanced handheld mine detection equipment.

(b) The SAC previously directed that acoustic techniques for mine detection be included in the candidates evaluated for humanitarian demining applicability. Acoustic detection remains a promising research area that will continue to be pursued.

COUNTERDRUG TRAINING

Question. Mr. Hamre, the Regional Counterdrug Training Academy was established in Meridian, Mississippi in 1992 as part of the congressionally mandated Gulf States Counterdrug Initiative.

Are you aware that since its inception, the Academy has trained and graduated over 9,000 police officers and personnel from Alabama, Louisiana, Mississippi, Georgia and the Armed Forces in counterdrug operations?

The Academy's success has led to a decision that will soon add the anti-terrorism training mission to its curriculum. Will the Department support providing the additional funding that may be needed for this expanded mission?

What are your plans for this program over the next few years?

Answer. Academy has trained and graduated since its inception in 1992, but it has been quite active. In just fiscal year 1997 it ran 63 iterations of 31 counterdrug-related classes, training over 2000 people.

The Department has no authority to provide any funding for this expanded anti-terrorism training mission. While the Academy's decision to add an anti-terrorism training mission to its curriculum demonstrates initiative, it was not requested by or coordinated with DOD. As you state in your introduction to these questions, the Regional Counterdrug Training Academy was established as part of the congressionally mandated Gulf States Counterdrug Initiative. It is authorized annually as one of DOD's counterdrug activities. Finally, funds are appropriated for it annually as part of DOD's counterdrug appropriation. DOD's authority to provide funding for the Regional Counterdrug Training Academy is limited to counterdrug training.

DOD budgeted \$2.2 million for the Regional Counterdrug Training Academy for fiscal year 1999 and fiscal year 2000. Its budget increases slightly to \$2.3 million for fiscal year 2001 and fiscal year 2002. Finally it increases once more in fiscal year 2003 to \$2.4 million.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

LOCATION OF NEW AGENCY

Question. Is one of the goals of the new Defense Threat Reduction and Treaty Compliance Agency to find a single location for the entire agency?

Answer. It is our intention to make every effort to find a single location for the new agency. Or alternatively, to establish the organization in facilities that are in close proximity to each other. Our goal is to create synergy among the technical expertise in the field of weapons of mass destruction as well as to anticipate creative functions for the future. This can be accomplished by locating the personnel in a convenient geographical area that is also cost-effective and meets a high standard of excellence for the personnel assigned to the agency.

FUNCTION OF DSWA'S FIELD COMMAND

Question. If so, what are your plans regarding the important WMD-related missions performed by DSWA's Field Command at Kirkland Air Force Base?

Answer. Current plans call for the integration of Field Command DSWA and the mission it performs within the new agency. However, groups have been appointed to review some aspects of the new agency's activities including several performed by Field Command.

DEFENSE REFORM INITIATIVE

Question. Is the DOD going to use the Defense Reform Initiative as a way to change in any way the separate but complimentary nuclear mission of the DOD and DOE?

Answer. No, we do not intend to change the nuclear missions of the two Departments in any fundamental way. The reorganizations envisioned by the Defense Reform Initiative will enable DOD to complete its nuclear mission more effectively because agencies with complimentary missions are being merged. The fundamental mission of DOD with respect to nuclear missions, however, will not change.

Question. If so, why?

Answer. Not applicable. See response to previous question.

REDUNDANCY OF NUCLEAR RESPONSIBILITY

Question. Does the DOD perceive any redundancy between the two departments in the nuclear area.

Answer. The Defense Department does not believe that there are any redundancies between the DOD and DOE regarding nuclear responsibilities. There is close coordination between the two Departments, particularly on nuclear stockpile support and operation of simulators for the leveraging of capabilities and avoidance of redundancies. Any transfer of work between the departments would necessitate a comparable increase to the workforce of the receiving department or result in the elimination of other work in order to accommodate the new mission.

MANAGEMENT OF NUCLEAR WEAPONS STOCKPILE

Question. The management of DOD's nuclear weapons stockpile involves accountability for weapons and components, logistical support, and inspections. This mission is the responsibility of DSWA. I have heard that the Department is considering splitting and transferring these efforts to other organizations rather than transferring as an entity to the new WMD agency. Why would the Department want to lose the synergy that currently exists among these efforts and the additional WMD missions to be performed by the new agency?

Answer. Current plans call for the integration of Field Command DSWA and the missions it performs within the new agency. We are not at this time adding or deleting from these missions for the new agency. However, groups have been appointed to review some aspects of the new agency's activities.

NUCLEAR SURETY INSPECTIONS

Question. In the case of inspections, why would the Department want to use the nuclear Commander in Chief (CINC)—Strategic Command—to inspect other CINC's on nuclear surety? Wouldn't an independent inspection process be more prudent?

Answer. Nuclear surety inspections are currently performed by the Defense Special Weapons Agency (DSWA) and present plans call for the transfer of this function to the new agency. Whether the inspections could be more effectively performed by another DOD organization, including a CINC, is the subject of ongoing review chaired by the Joint Staff.

QUESTIONS SUBMITTED BY SENATOR JUDD GREGG

NATIONAL GUARD ROLE IN CONSEQUENCE MANAGEMENT OPERATIONS

Question. Dr. Hamre, you indicated that the fiscal year 1999 budget request provides approximately \$49 million for National Guard units to bring in NBC equipment to augment early responders in a crisis. Please provide additional explanatory information on the subject, to include, but not limited to: detailed funding breakout for fiscal year 1999 and the outyears.

Answer. \$49.2 million for fiscal year 1999 implementation has been requested for fiscal year 1999 in the President's Budget with the following recommendations: \$19.9 million to stand up, train, and equip National Guard Rapid Assessment and Initial Detection elements; \$15.9 million for patient decontamination and WMD reconnaissance element training and equipment in the Army and Air National Guard, and the Army and Air Force Reserve; \$6.9 million to establish and staff a Consequence Management Program Integration Office; \$3.3 million to train and prepare medical personnel to provide medical care to nuclear, chemical, and biological casualties; \$1.8 million for additional Emergency Preparedness Liaison Officer training and equipment; and \$1.4 million to upgrade simulation systems and conduct civil-military response exercises.

All states and territories will benefit from this substantial DOD effort. The benefits from the expenditure of these funds, for the purposes identified above, will develop through fiscal year 1999 and into the future. Outyear funding requirements are currently under development.

Question. Types of units and the tasks and missions that the units will perform.

Answer. During the development of the plan approved by the Deputy Secretary of Defense, Services were asked to identify units that might perform the response tasks identified in the interagency WMD response plan and to indicate if those units were adequately organized, trained, and equipped to perform these specific tasks. This survey dramatically displayed existing gaps in procedures, training, and equipment necessary for appropriate response.

The Response Task Force Commanders, Defense Coordinating Officers, and Emergency Preparedness Liaison Officers from all services are identified and trained to work in the interagency environment. The task force commanders, however, have only a limited number of specifically focused response assets to call on—and their capacity for large events may not be sufficient. This program will dramatically increase those elements that are prepared to respond quickly. The consequence management program integration office, being established now, will develop the organization of each element as well as the training and equipment necessary for that element. These elements will range in size from 5 or 6 people to 50 or 60. During the first year of the program, we will establish three types of elements: Assessment, Decontamination, and Reconnaissance, and begin training some of the medical personnel.

The rapid assessment elements will form the tip of the federal military spear for response to WMD attacks. They are designed to rapidly deploy to an incident site to assist local, state, and other federal agencies in assessing the situation and initiating requests for additional state or federal response assets needed. Twenty-two full-time National Guard soldiers and airmen, commanded by a Lieutenant Colonel, will undergo intense technical training. Specific courses for each position have been identified. These elements will also be equipped with state of the art detection and analysis equipment, as well as computer models for various types of attacks. As a National Guard element, they may be employed by the Governor or be federalized and deployed to respond with other federal assets. The location of the RAID elements to be fielded in fiscal year 1999 in each Federal Emergency Management Agency Region will be determined by a modeling process that analyzes specific stationing criteria. Some influencing factors are demographics of a quick response area, geographic orientation, National Guard airlift response availability, existing response assets, and interstate compacts.

These elements are created out of existing force structure. We are able to leverage the National Guard and Reserve Component capabilities by focusing existing units on the consequence management mission tasks, providing specific training, and delivering supplemental equipment to enhance their current capabilities. This capitalizes on the current structure and leverages their current training. Using National Guard and reserve elements already stationed throughout the United States also improves the response time to incident sites. The National Guard elements may be employed as state assets or as federal assets under the Response Task Force.

We believe this program will develop capabilities required by our nation to meet the overwhelming challenges from the use of Weapons of Mass Destruction. These are the same capabilities we require in the DOD to respond to the use of WMD against our forces anywhere in the world.

Question. Time lines for activation of the units.

Answer. Ten rapid assessment elements will be fielded in fiscal year 1999 (the plan is to field one in the 1st Quarter, and 3 in each subsequent quarter).

The force structure for the Reconnaissance and Decontamination Elements is already in existence. Army Reserve and National Guard Chemical Units and Air Force Reserve/Air National Guard Medical Patient Decontamination teams will be receiving additional training and equipment in fiscal year 1999 and fiscal year 2000 to perform this mission.

Question. Training that the units will receive.

Answer. While many military units possess basic skills and capabilities that can be applied to WMD response requirements, few have been specifically focused on the precise tasks or equipped with the appropriate assets to immediately respond to such an event.

For many of the WMD response tasks, focusing units on the missions they may be asked to perform and developing their awareness of the Incident Command System (ICS) is all that may be necessary. For others, specific tasks will require training. In a WMD scenario, selected members will be tasked to deploy to the Hot Zone and operate for extended periods of time, quite different from our wartime practices. Even more demanding, the tasks requiring total decontamination must be anticipated. These are very different practices when compared to our military doctrine today. Here again, the value of training to the same standards, using common terminology and exercising with first responders, we have the opportunity to prepare for this most demanding mission.

Question. Explanation of how the National Guard units will be integrated with Active component units.

Answer. This is a major step forward for the Guard and Reserve into the Total Force concept. In Secretary Cohen's September 4, 1997 Memo on the integration of the active and reserve components, we received our marching orders. He called on the military services to provide the National Command Authorities with a total force that provides the flexibility and interoperability necessary for the full range of military operations. He went on to challenge us to identify and tear down any remaining barriers to effective integration. The use of the Guard and Reserve during an actual WMD event will clearly demonstrate just how effective we have become in implementing the Total Force concept.

With a major emphasis being placed on special training to manage chemical and biological disasters, our Guard and Reserve will be better able to respond to other disasters that may unexpectedly involve hazardous materials. And if called to active duty, these Guard and Reserve forces will step right in with their active duty counterparts without significant additional training in these areas.

Question. Explanation of how the National Guard units will coordinate with and receive information from local, state, and federal authorities.

Answer. I see that this new role will serve to improve the relationship that Guard and Reserve forces have with their local counterparts. By bringing them together more often during local, state, and federal exercises, they will have the opportunity to practice their various roles. So, in the event of an actual disaster, all will know exactly what to do and how to work together.

As a nation we will also benefit as we will continue to have one of the most capable military forces in the world.

And every citizen in our nation also benefits. With a larger force of well-trained and well-equipped responders, we will have more experts in more communities throughout the country. Having the right people with the right training and the right equipment responding at the right time to the right threat means more lives saved in any disaster.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

BOSNIA—COSTS, STRATEGY, AND NUMBER OF PEOPLE INVOLVED

Question. Dr. Hamre, I understand the Administration's plans for a follow-on force in Bosnia are now being formulated. Can you tell the Committee what the size of the force will be and your estimates of the costs for the balance of 1998 and for 1999?

Answer. NATO has selected a mission option for the follow-on force for SFOR. The U.S. has announced that its contribution to that follow-on force will represent a reduction in the current U.S. contingent from 8,500 to 6,900. It is too soon to say what the savings will be; however, the costs associated with logistics tail will remain relatively fixed. As you know, the President has requested \$486.9 million in supplemental appropriations to support U.S. operations in Bosnia for fiscal year 1998, post June 30, 1998, as well as \$1.858.6 billion for fiscal year 1999.

Question. When will the President certify these plans to the Congress?

Answer. Pursuant to the National Defense Authorization and Appropriations Acts for Fiscal Year 1998, the President submitted a certification and related report to the Congress on the need for extending the U.S. deployment in Bosnia and on other matters as part of the request for fiscal year 1998 supplemental appropriations, which was dated March 3, 1998.

Question. Is there an agreed upon exist strategy for pulling U.S. forces out of Bosnia?

Answer. The goal of U.S. policy in Bosnia is to create a sustainable peace where a sizable NATO presence is no longer necessary and diplomatic, institutional, and economic levers are sufficient to sustain peace in the region. Ten benchmarks have been established which would likely create the conditions needed for a NATO ground troop withdrawal:

1. Local police forces need to be restructured, re-integrated, and re-equipped such that they can.
2. A phased and orderly process for returns of refugees and displaced persons should be in effectively deal with civil disorder in accordance with western standards.
3. Less political party control of the media, more accessibility for all political parties, and a more formidable "independent" media.
4. The military balance will require confidence and security building measures, arms control, and greater inter-entity military cooperation.
5. Functioning Joint-Institutions that decrease official corruption through the creation of legitimate revenue/disbursement mechanisms.
6. Democratization. The September 1998 elections must be conducted in a free and fair manner. The need for OSCE supervision/arbitration should reduce. Local, entity, and national governments should function transparently.
7. Economic reconstruction. The interim currency should be in circulation, public corporations formed, transparent budgets in place, and an IMF program in place.
8. A multi-Party solution to the administration of Brcko should be in place.
9. A improve party cooperation on the war crimes issue.
10. International organizations should be able to function without a large NATO presence.

Question. What is DOD's policy for the troops currently assigned to Bosnia—will they be replaced or asked to stay on for the duration?

Answer. Some troops will be replaced. Generally, DOD is using Army-wide sourcing and continued participation by the Reserve Components to lessen the impact on EUCOM of OPTEMPO and PERSTEMP requirements. For some combat/

combat-service support units such as Military Police, logistics, maintenance, etc., duty in Bosnia is enhancing their skills and readiness.

RECRUITING AND RETENTION

Question. Recently, the Air Force Chief of Staff brought his concerns on pilot retention to my attention. I am told the other services are also concerned with their ability to meet their recruiting and retention goals. What does your 1999 budget request do to ensure that the services can meet their personnel requirements?

Answer. Last year the Department requested and Congress approved legislation to increase the maximum amounts for Aviator Career Incentive Pay (ACIP) and the Aviator Continuation Bonus (ACP). The Services budgeted funds to cover the increases. In general, across the Services both retention and bonus take rates are declining, pilot separations are increasing, and airline hiring—which may have peaked at 3,854 new hires in 1997—is projected to stay above 3,000 over the next several years. Applying current retention models with the expanded authorities provided in the Fiscal Year 1998 National Defense Authorization Act, the Services project they will retain adequate numbers of aviators to meet mission requirements through fiscal year 1999. The Services are also working hard to reduce the strain of high operational tempo on the quality of life of our pilots and their families. While pilot retention is of concern, the Services are not now indicating a short-term readiness impact. We are concerned, however, about longer-term issues and are studying options to address this problem on a priority basis. We expect to provide a report to Congress on the progress of this effort by March 31.

Question. Are you confident the request provides adequate resources for recruiting and advertising?

Answer. The fiscal year 1999 budget request for recruiting and advertising provides what we felt to be an adequate level of investment for the planned accession missions. That said, a strong economy, coupled with record-low unemployment, continues to force the Department to apply additional resources to sustain success in military recruiting programs. After facing resource shortfalls in recruiting and advertising, the Army reprogrammed funds in fiscal years 1997–98 for advertising, enlistment bonuses, and education benefits. Today, the Army has adequately budgeted recruiting for fiscal year 1999. In fiscal year 1998, the Navy cut recruiters and other resources; as a result, the Navy probably will miss its accession objectives. However, the Navy has taken steps to correct that problem for fiscal year 1999, resulting in an investment-per-recruit ratio similar to the level employed during the successful recruiting years of 1996–97. The Navy's action will fund an expansion in the number of recruiters and will boost investments in enlistment incentives and advertising. The Air Force and Marine Corps recruiting and advertising budgets appear to be satisfactory for fiscal year 1999.

Question. Can you assure this Committee that sufficient funding has been set aside for bonuses and other incentives to retain key military personnel?

Answer. Our assessment is that the Services have allocated sufficient funding to retain individuals who have highly marketable civilian skills. This has always been a challenge for us, even during the drawdown. In order to be competitive, we use the special and incentive pays authorized by Congress such as selective reenlistment bonus; aviation continuation pay; medical specialty pays for doctors, nurses and dentists; and nuclear officer bonuses. We appreciate the strong and continuing support of Congress for these special pays. The fiscal year 1999 budget request is adequate to meet current needs, but we see indications of potential problems in the next few years and may be putting forth requests for some increases in existing pays and possible additions of new pay authorities in the near future.

MEDICAL CARE FOR RETIREES AND FEHBP COVERAGE

Question. Dr. Hamre there is a great outcry among our military retirees that their health needs have been forgotten by the Defense Department. One proposal which may come up this year to redress this is to place our retirees under the Federal Employees Health Benefits Program. Can you present the arguments in favor of and in opposition to this plan and why DOD might not be supportive of the idea?

Answer. Undoubtedly, this nation owes a great debt of gratitude to the men and women who served, especially those who risked their lives and fought the nation's wars. The Department feels a sincere and abiding responsibility for the health care of all our beneficiaries, including those who are retired. While the Department deeply appreciates the health care needs of our military retirees, legislative proposals mandating access to the Federal Employees Health Benefits Program (FEHBP) for military retirees who are Medicare eligible raise significant cost concerns. The CBO has estimated that the total government cost of offering FEHBP to this population

is approximately \$1.5 billion annually. Moreover, allowing major segments of our beneficiaries to enroll in FEHBP poses serious readiness implications for the Military Health System, since retention of our retiree population within the direct care system is critical to training and readiness. While the DOD places a high priority on the importance of providing access to affordable health care to our retirees, their spouses, and survivors, absorbing the cost of FEHBP on an annual basis is prohibitively expensive. The Department strongly endorses the use of Medicare dollars through Medicare subvention to expand capacity and services to our Medicare-eligible beneficiaries. The Department is aggressively pursuing the Medicare subvention demonstration program authorized by the Balanced Budget Act of 1997 as an important first step in bringing Medicare subvention nationwide.

Question. How would such a proposal impact on the military treatment facilities?

Answer. Proposals to offer FEHBP enrollment to Medicare eligible military retirees would have a dramatic impact on military treatment facilities and the entire Military Health System. As stated above, absorbing the cost of FEHBP on an annual basis would dramatically reduce the ability of the Military Health System to meet its readiness mission and would have detrimental effects on the training and skill maintenance of physicians and other medical personnel. Moreover, requiring the Military Health System to absorb the cost of FEHBP premiums for some or all retirees would actually reduce the capacity of the MHS to provide services to retirees on a space available basis. This reduction in the current level of effort would, in turn, jeopardize the flow of Medicare dollars into the MHS, which is critical to the success of the Medicare subvention program.

B-2 BOMBER

Question. Mr. Secretary, last year the Congress provided \$331 million to start the procurement of additional B-2 bombers. The President has not indicated that he intends to use these funds for other purposes. Have you decided to buy more B-2 bombers, and if so, how many?

Answer. The President will indicate his intentions with respect to procuring additional B-2 bombers in fiscal year 1998 after he receives the recommendations of the Congressionally-mandated Long Range Airpower Panel. The Department of Defense position remains unchanged; there is no need to procure additional B-2's beyond the current fleet of 21 aircraft.

Question. If the President determines that no more B-2's will be purchased what plans have you made for spending the \$331 million appropriated?

Answer. The Air Force will use the \$174 million requested in the fiscal year 1998/1999 President's Budget to support the B-2 bomber baseline program identified to Congress in justification material provided in February 1997. The remaining \$157 million will be applied to continuing the B-2 Multi-Stage Improvement Program. The following requirements are currently unfunded:

	<i>Millions</i>
Low Observable (LO) Maintainability Improvements	\$50
Deployable Shelters	22
Beyond-Line-of-Sight (BLOS) SATCOM	58
Radio/Mission Management 8x10 Center Instrument Display	36
WCMD Integration	39
Auto-throttles/Digital Engine Control	11
Total	216

QUESTION SUBMITTED BY SENATOR ERNEST F. HOLLINGS

FUNDING FOR JROTC

Question. Mr. Secretary, I am receiving reports from students, educators, and parents from all across South Carolina telling me that funding for Junior ROTC has been cut and that this cut is adversely affecting this important youth program. Why is this so? Will this year's budget adequately fund JROTC?

Answer. No Service has expanded the number of JROTC units; however, because of the need to trim back overall, the Navy has reduced funding for existing units. It did so only after it had reduced its JROTC headquarters staff by about one-half. The funding adjustments by the Navy represent a 30-percent reduction in its JROTC budget for fiscal year 1998, relative to 1997. This includes cuts in funding for student travel, which in turn may limit field trips. A separate concern from South Carolina, expressed during a meeting of state legislators and educators spon-

sored by the Senate Armed Services Committee staff on March 6, centered on the State's preference to establish new JROTC units. During that meeting, we reported that the Services are not currently in a position to expand their JROTC presence in South Carolina because of budgetary constraints. We also noted that the JROTC program is significantly over-represented in South Carolina relative to the national average. About one-half of South Carolina high schools now have JROTC units compared to approximately 10 percent nationwide, with many of the latter group now on a waiting list.

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

DEPLOYMENT

Question. Last spring the GAO completed a report, which was entitled, "Medical Surveillance Improved Since Gulf War, But Mixed Results in Bosnia." In short, the GAO reported that DOD had initiated changes to improve medical surveillance for deployments, but that medical assessments and record keeping were still incomplete. What, if anything, Dr. Hamre, is DOD doing differently in the current deployment to avoid repeating the mistakes made seven years ago?

Answer. The Department has learned many lessons from the Gulf War experience. After the Gulf War, the Assistant Secretary of Defense for Health Affairs and the Joint Staff undertook a complete review of doctrine, policy, oversight, and operational practices for medical surveillance and force health protection. A number of changes were incorporated for subsequent deployments to Somalia, Rwanda, Haiti, and Bosnia. In August 1997, the Department issued DOD Directive 6490.2 "Joint Medical Surveillance" and DOD Instruction 6490.3 "Implementation and Application of Joint Medical Surveillance for Deployments." The directives establish the Department's policy and requirements that will improve health assessments, surveillance, and record keeping during deployments. The directives require: pre-deployment and post-deployment health screenings, including mental health assessments, blood sample collections; health threat briefings; and the collecting, analyzing, and documenting of an expanded range of health surveillance data during deployments.

The Joint Staff and the Services are implementing these requirements. Currently, joint publications are being rewritten to include changes in doctrine regarding force medical protection. Additionally, the warfighting Commanders in Chief have revised theater operations plans to include the force medical protection requirements.

For current operations in Southwest Asia, USCINCENT recognized the importance of improved medical surveillance, immunization tracking, and record keeping. USCINCENT requested and received augmentation by a Joint Medical Surveillance Team (JMST) in March 1998. The JMST will coordinate, monitor, and evaluate force medical protection measures during current operations. The 8-person team includes one 2-person element augmenting the CENTCOM Surgeon's staff in Florida, while three 2-person elements deployed to augment the medical staff of the Army, Air Force, and Navy components in theater.

For the future, the Services and the Director, Medical Information Management, Technology and Reengineering, TRICARE Management Activity are establishing the information system requirements to support medical record keeping during deployments and throughout the Military Health System. The computerized patient record (CPR), Theater Medical Information Program (TMIP), and the personal information carrier (PIC) are major information system initiatives designed to create an effective medical tracking system and health record before, during, and after deployments.

For the current operations in Southwest Asia, actions related to specific lessons learned include:

Learned.—Perform and document pre-deployment health assessment.

Action.—USCINCENT requires health assessment before deployment. In theater health assessment standardized and entered in central database.

Learned.—Improve medical record keeping in theater.

Action.—Immunizations documented by: USAF using Military Immunization Tracking System; USA using MedPROS; and USN using SNAP Automated Medical System afloat.

Health care encounters in theater documented by: USAF and USA using "Medical Surveillance—Theater" system; and USN using "SNAP Automated Medical System" afloat.

Requirements being developed for documentation of use/issue of preventive countermeasures.

Learned.—Improve medical surveillance in theater.

Action.—USCINCCENT requires weekly reporting of disease and non-battle injury (DNBI) data to the CINC Surgeon.

Joint Medical Surveillance Teams deployed at USCINCCENT request to oversee surveillance and monitor immunization tracking and record keeping.

USAF and USA using “Medical Surveillance—Theater” system.

USN using “SNAP Automated Medical System” afloat.

Learned.—Improve exposure assessments and record keeping in theater.

Action.—Laboratories deployed (biological and environmental capabilities).

Documentation of pesticide usage required during deployment.

Database of environmental sampling results retained.

Learned.—Perform and document health assessment at redeployment.

Action.—In theater health assessment standardized and entered in central database.

Learned.—Need licensed products for BW/CW countermeasures.

Action.—Ongoing efforts among OASD(HA), Food and Drug Administration (FDA) and Army Medical Research and Materiel Command regarding pyridostigmine bromide (PB), botulinum toxoid, and future products.

Learned.—Improve health risk communication efforts.

Action.—Predeployment health threat briefings (“what are the threats”).

Health threat briefings (“what actually was experienced”) required on redeployment.

Information packets on health issues (especially for BW/CW countermeasures) for military member, unit leadership, and medical personnel.

Plan to distribute results of post-deployment health assessments.

Learned.—Assess health of force post-deployment.

Action.—U.S. Army Center for Health Promotion and Preventive Medicine has mission for central analysis of deployment and postdeployment health experience.

Learned.—Improve VA/DOD coordination during and after deployment.

Action.—Active VA/DOD Executive Council.

Military and Veterans Health Coordinating Board evolving out of Persian Gulf Veterans Coordinating Board.

Question. Last year this subcommittee added funding to develop advance medical information management technologies. Health Affairs has begun an effort out of those funds which would put critical medical data about each deploying service member on a ruggedized magnetic dogtag, called a Personal Information Carrier (PIC). The dogtag would capture massive amounts of data about each person’s particular health situation before, during, and after a deployment. This prototype carries the digital equivalent of 15,000 pages worth of text, and costs about \$20. Unfortunately, while the Administration is planning a 33,000-person demonstration of these carriers in the future, there is no funding in the Administration’s request to begin this project. As our forces once again head back to the Gulf, I can’t help but think we can do a better job of monitoring the health risks that our service members encounter when they are deployed. What will DOD be doing to get technologies like the PIC out of the laboratory and into the field?

Answer. Current joint-service efforts directly support President Clinton’s November 8, 1997 statement and the Fiscal Year 1998 DOD Authorization Act requirements (Section 765: Medical Tracking System). These directives establish the Department’s policies, and the Composite Health Care System II (CHCS II) objectives regarding joint medical surveillance during deployments, which support Force Health Protection initiatives. They require pre-deployment and post-deployment health screenings, including mental health assessments, blood sample collections, health threat briefings, and the collecting, analyzing, and documenting of an expanded range of health surveillance data during deployments. This data will be captured in a database built on technology used for assessing Persian Gulf Illness. Furthermore, the Computerized Patient Record (CPR), Theater Medical Information Program (TMIP), and the Personal Information Carrier (PIC) are major information system initiatives designed to create an effective medical tracking system and health record prior to, during, and after deployments.

In order to meet the critical, immediate need for the database and this device, DOD is following an acquisition strategy of “buying a little, testing a little and deploying a lot”. DOD is employing full and open competition to obtain the technical solution—a PIC device that will interface with existing databases. Interested vendors will provide hardware prototypes by May 5, 1998. After conducting hardware destructive tests, a proof of concept test will be performed this summer to ensure that medical data can be captured in the database, and written to and read from the PIC devices.

A review of DHP funding priorities is currently occurring to determine how to best pay for the \$32 million needed for PIC. Software development will continue,

and a formal Request for Purchase (RFP) will be issued October 1, 1998 for a proposed Low Rate Initial Production (LRIP) quantity of 33,000 PIC hardware devices. These devices are scheduled to be operationally tested in Southwest Asia starting in March 1999.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

INFLATION ADJUSTMENTS

Question. My understanding is that the Administration's budget has allocated to the Department of Defense another \$21.2 billion over the next 5 years in additional spending power, as a result of lower inflation estimates. (These savings amounted to approximately \$2.8 billion for fiscal year 1999.)

Could you please describe how the Administration's process for distributing these inflation savings works? Has the Department always been allocated these savings?

In the past, have some of the savings been retained by OMB to provide budgetary flexibility elsewhere in the budget? Do you know what OMB's thinking was in allocating all of these savings to DOD?

Answer. The Administration (OMB) issues economic assumptions in late November or early December each year to all federal departments and agencies for purposes of preparing the annual budget for submission to Congress by the first Monday in February. The economic assumptions include separate projections for military and civilian pay raises, fuel prices, medical costs, and for all other non-pay purchases.

The revised economic assumptions can result in either a savings or an increase to the Department's plan. For the last several years, the historically low inflation rates have resulted in savings. President Clinton has allowed DOD to retain these savings. In some prior years to this Administration, the OMB took some of the savings for deficit reduction since a reduction for inflation does not take reduce real program.

OMB allowed DOD to keep all the inflation savings in the fiscal year 1999 budget because the Balanced Budget Agreement was in terms of nominal dollars—not constant dollars—and DOD had a number of fact-of-life unpaid bills such as civilian pay.

BASE CLOSURES

Question. Secretary Cohen's Defense Reform Initiative includes the recommendation that Congress authorize two more rounds of base closure, in 2001 and 2005. Comptroller Lynn's chart on the base closure issue asserts that 2 new BRAC rounds "will produce \$3+ billion in annual savings." However, the chart fails to predict when those savings will materialize.

Looking at the most recent BRAC round, according to DOD estimates, the 1995 round will not begin to produce annual savings until 2002 or later—seven years after the base closure commission made its decisions.

Is it fair for us to project this record forward? Can we conclude that a BRAC round in 2001 will not produce net savings until 2008, and that a BRAC round in 2005 will not yield net savings until 2013 or later?

Answer. No. A BRAC round in 2001 will produce annual net savings in 2005. A BRAC round in 2005 will produce annual net savings in 2009. Together, these two rounds will yield annual net savings in 2008 that build to more than \$3 billion per year after 2011 and to a total of \$21 billion by 2015. Annual savings tend to exceed annual costs in the fourth year of implementation. For example, annual savings exceeded annual costs associated with BRAC 88 in 1994 (5th year), BRAC 91 in 1995 (4th year), BRAC 93 in 1997 (4th year) and BRAC 95 in 2001 (6th year).

TRACKING INFRASTRUCTURE SAVINGS

Question. Is there adequate accounting throughout the services and the agencies, to track savings attributable to outsourcing and privatization? If so, what are those accounting procedures and systems? Are they compatible and consistent across agencies and services? Is there guidance, and are there standard criteria and methodologies, for counting costs and savings? Are you confident that Deputy Under Secretary Goodman is adequately tracking these savings?

Answer. All organizations, not just DOD, must estimate the savings produced by management reforms, consolidations, and reorganizations. Accounting systems keep accurate records for costs; however, no parallel systems exist to track savings. Therefore, savings must be estimated. The fact that organizations must estimate savings, however, does not mean that the savings are not real. The primary reason

that business and government reform management practices, consolidate operations, and improve organizational structures is precisely to generate these savings.

The Components were not issued specific guidance concerning standard criteria and methodologies for counting costs and savings; however, various estimating techniques confirm the general level of savings associated with outsourcing and privatization efforts. Further, we are developing a questionnaire to be used to consistently track savings for future rounds and I am confident that John Goodman has a good handle on these savings.

\$60 BILLION PROCUREMENT TARGET

Question. We often hear about the Department's goal of a \$60 billion annual procurement or modernization budget. And I note that the President's budget proposal achieves that goal for fiscal year 2001, 2002 and 2003. Could you please explain how this \$60 billion target was arrived at? Was it a threat-based analysis?

Answer. The \$60 billion target is a departmental goal. There is universal agreement that the level of procurement funding has fallen as far as it should. There is an undisputed need to invest in the recapitalization of our forces. Current inventories are aging and new technologies offer enormous potential to improve our combat capabilities across all mission areas. As the level of procurement funding dropped below \$40 billion in the fiscal year 1996 budget, the Department's leadership felt it was important to focus attention on the need to increase funding for modernization. The establishment of a departmental funding target serves that purpose. Both the Secretary and I have testified in the past that it is important not to become fixated with any particular number. The \$60 billion is not an end in itself. What is important is recognition of the need to increase procurement funding in order to pursue a focused modernization effort that will ensure this country can maintain the qualitative battlefield superiority we need to have. The Quadrennial Defense Review (QDR) reaffirmed the desirability of achieving a modernization level of roughly \$60 billion. As you noted, our budget proposal achieves that level in fiscal year 2001 and stabilizes funding at that level through fiscal year 2003.

CBO REESTIMATE

Question. Press reports this morning suggest that the Congressional Budget Office will conclude that the fiscal year 1999 budget would result in outlays that are \$3 billion to \$4 billion higher than permitted by the bipartisan budget agreement. In short, the Administration underestimated the cost of its defense program by \$3 to \$4 billion.

Could you please respond to these reports? What kind of a difference are we dealing with? How do DOD's budget estimation and projection methods differ from those of CBO? To what parts of the defense budget can we attribute these billion-dollar differences in outlay projections?

Answer. The CBO reestimate of the President's budget request is \$3.6 billion higher than the OMB estimate of the program. In general, CBO and OMB differ in these estimates because CBO does not adjust their model for anticipated policy changes, program level changes, or emerging trends in spending patterns. OMB/DOD projects outlays based on program content changes such as modifications; Congressional changes to the original budget request; and actual program execution experience. Within the defense budget, the major outlay differences are found in the following accounts: Working Capital Funds; RDT&E, Air Force; Shipbuilding and Conversion, Navy; Base Realignment and Closure; Operation and Maintenance, Air Force; National Defense Stockpile; and Aircraft Procurement, Navy.

SUBCOMMITTEE RECESS

Senator STEVENS. This will complete this hearing and we will resume the subcommittee again on March 4, when we take up the Air Force budget.

Thank you.

[Whereupon, at 3:58 p.m., Tuesday, February 26, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, March 4.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

WEDNESDAY, MARCH 4, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:41 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Bond, Shelby, Bumpers, Harkin, and Dorgan.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE AIR FORCE

OFFICE OF THE SECRETARY

STATEMENTS OF:

**HON. F. WHITTEN PETERS, ACTING SECRETARY OF THE AIR
FORCE**

GEN. MICHAEL E. RYAN, CHIEF OF STAFF

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. General Ryan, Secretary Peters, I think I will start. I will ask Senator Bond also to make a statement. We hope that the rest will get here who intend to get here, but the vote has just been on for a few minutes. We have made arrangements so that we will not be interrupted again this morning.

This is the first appearance that both of you have made before this committee and we welcome you. There is going to be some question about your budget. I do think you have done an excellent job of building on what is available. We feel that we are going to have to go into some of the negative trends that we have seen as far as the Air Force is concerned.

I am disturbed that the O&M account is basically flat for fiscal year 1999 compared to fiscal year 1998, and that is in spite of the fact that the Air Force must absorb \$800 million in price increases and program transfers within the available budget.

I think that we are all going to have questions about readiness. But my long-term goal, of course, is the F-22. We have to make sure that our modernization program stays on course.

The space-based infrared system and the Joint Strike Fighter are moving to costly phases now, and that is going to produce substantial problems for us unless we can find some way to hold those costs down.

It looks like the defense budget is going to be flat through 2003. I am disturbed about that because I think we have had to absorb some costs that I still believe were emergency costs for Bosnia and some of the Iraq costs which we will try to address in the supplemental. But, clearly, that projection, now that the balanced budget is going to occur actually this year rather than in 2002, is going to put enormous strain on defense spending because I am certain that that is going to be the goal, to keep it that way through the period ahead.

Hopefully, we will have a balanced budget from now on.

But I am just increasingly disturbed that this subcommittee has had to sort of swallow some costs that were not really basically defense costs and they are going to impact our future as far as having funds available for the modernization program.

I will have some specific questions after you gentlemen make your statements.

Let me yield now to Senator Bond.

STATEMENT OF HON. CHRISTOPHER S. BOND

Senator BOND. Thank you very much, Mr. Chairman.

Mr. Secretary, General Ryan, I join with the chairman in welcoming you before the committee today to address some really prominent questions concerning the Air Force.

As we all know, today, once more, the Air Force is being asked to do more with less. Mr. Secretary, I know that I join with the rest of the members of this committee when I voice my concern over the ability of the Air Force effectively to meet its mission requirements. That, basically, is what we are all about. At the same time, we cannot be making deep cuts in the supply stocks and accelerating depreciation of life cycle times of equipment, not to mention stretching personnel to their limits through the increased deployment schedules.

We have all heard about and are very much concerned about the abysmal retention rates of pilots. We are sympathetic to your efforts to find an answer. But I submit that just throwing money at these individuals may not be the sole answer.

As I understand, most join the military service to live the experience of doing something significant for their country, to lead a superlative group of men and women and to provide a fair lifestyle for their families.

Of course, this includes financial considerations, but it is not the be-all and end-all. As I understand it, a program to give pilots a considerable bonus package has met with something less than an enthusiastic response.

The exodus of the individuals from the Air Force has spanned the rank structure, and I anticipate that, when these bonuses run their course, you will, once again, see another exodus only at higher, and arguably more critical, grades.

Over the years, individual tactical training flight time has been drastically reduced. Operations and maintenance funding has been creatively shifted around so that contingency operations may be fully resourced while other phases of readiness training are critically short of funds, and operational flights, in large part, are spent

flying figure eights in the sky, waiting, just waiting for skills to be called on—but not honing the edge of these superb pilots.

Rather, operational flying by its nature these days permits that edge to be dulled from a lack of training. I wonder if you are looking into improving the availability of high quality training opportunities during deployed operations and other measures like that to improve pilot morale.

I suggest that this kind of thinking might be applied, as well, to junior and senior enlisted ranks.

That said, we recognize the awesome burden facing our Armed Forces, both in terms of its increase in mission requirements and concurrent decrease in the funding available to meet those missions.

For many years, this committee has warned the Department of Defense about the policy of low-balling funding requirements which only exacerbates the fiscal problems facing all of the services' ability to conduct the myriad of operations required of you. I think we are now caught in another emergency crack where there has been low-balling and overexpenditure.

As I understand it from Mr. Hamre's comments last week, you are already expending funds from the fourth quarter of the fiscal year 1998 budget to pay for missions being flown today, and we are only in March, Mr. Secretary.

Over the past 6 years, this Congress has increased the defense budget by billions of dollars. Some critics have attacked us for those increases. But the Department and the administration have routinely come back to us pleading for more, as you see once again this year through emergency supplementals—primarily because of the burgeoning contingency operations costs.

Some of those operations have extended way beyond contingency status and we have contested your financial planning for them. I don't think it is adequate. I don't think you are giving us a fair assessment.

On a more happy note, as we look to meet your fiscal requirements and your operational requirements, we recognize the need to coordinate and integrate our combat forces now more than ever. As someone, I can assure you, who is deeply concerned about the integration of our Active and Reserve forces, I congratulate you for the manner in which the Air Force leadership has dedicated itself and been able to integrate the Active, Reserve, and Guard components with the military fighting force.

If they were here, I would call upon the leadership of your sister services to take note of how you do it successfully. If you have a chance, you might share with them that it can work and you do make it work. There are some people who just think there ain't no way, but you all have done it.

I do have some concerns regarding the upgrading of National Guard general purpose squadrons to insure the viability for the future force of the 21st century. I draw attention to this because of the fact that the St. Louis Air Guard F-15 unit is currently conducting front-line deployed operations overseas. Many of our Nation's most experienced fighter aviators reside in Guard units. This same unit in my home State is, in fact, home to a gulf war three

time Mig killer, and I am sure that the service would benefit from insuring his continued full integration in the fighter force.

General Ryan, when it comes to my question time, I would like for you to address how the Air Force intends to insure this and maybe speed up the integration of the F-15C into Guard units or upgrade the electronic suite of the F-15A's to keep them front-line viable or even convert these units to F-15E squadrons, which we would like to see.

I also congratulate you both on your dedication to providing the Air Force with a program to insure the Air Force will continue to meet its airlift mission requirements well into the future. We will address this, too, in the questions and answers as well as the questions submitted for the record.

Mr. Chairman, I thank you for this time and I appreciate the opportunity to hear what the Secretary and the General have to say.

Senator STEVENS. Thank you very much, Senator.

I don't think we will wait any longer. There may be others who will come later.

We would be pleased to have your statements, gentlemen.

Mr. Secretary, General, please proceed.

Mr. PETERS. Thank you, Mr. Chairman. Thank you, Senator Bond.

We appreciate the opportunity to appear this morning before you to discuss the Air Force's future plans and priorities and, in particular, our proposed program for fiscal year 1999. I would also like to thank this committee for its past support for Air Force programs, which has been tremendous.

For fiscal year 1999, the Air Force has three budget priorities: people; readiness; and modernization. People come first because we cannot have a ready force today or tomorrow unless we attract, train, and retain the highest quality men and women to operate our 21st century technologies.

Readiness and modernization are equally key to our present and future national security and in our constrained budget environment, we must assume some risk in current readiness in order to pay for modernization that is key to our future security.

We believe that we have properly balanced our 1999 budget, increasing funding for readiness-related items by some \$1 billion while also providing increased funding for key modernization programs in air superiority, global mobility, and space.

Importantly, over the Future Years Defense Program, we have achieved 15 percent real growth in our investment accounts.

Our three budget priorities directly support the "Quadrennial Defense Review" [QDR] strategy, the report of the national defense panel [NDP], and the chairman's "Joint Vision 2010." In fact, the national defense panel reaffirmed that aerospace power plays a significant role in shaping, responding, and preparing for an uncertain future.

Let me turn first to people:

As I have said, people are central to our efforts to shape the international environment and to run our modern Air Force. Over the past year, our airmen have been engaged around the world and have flown into virtually every country in the world. Our forces, for example, have supported peacekeeping operations in Bosnia, hu-

manitarian firefighting operations in Indonesia, and noncombatant evacuation operations in Albania and Sierra Leone.

We also contributed significantly to shaping events by participating in 53 joint and multilateral exercises worldwide. And, of course, the Air Force has been heavily engaged in Southwest Asia where, on a typical day, 8,500 men and women have launched about 150 sorties over Iraq. Today that number has risen to about 14,000.

These operations are not without cost. The deployment rates of our total force have increased dramatically since the end of the cold war. Altogether, last year some 14,000 total force airmen were deployed on any given day, a fourfold increase over 1989, despite a 35-percent decrease in total end strength since the end of the cold war.

Two years ago, many of our men and women were deployed well over our goal of 120 days per year. In 1997, until the recent developments in Southwest Asia, we had substantially reduced deployment rates for many units through global sourcing, creative use of Reserve and Guard units, and increases in manning in highly stressed specialties. However, these efforts have placed a heavy burden on our Reserve forces.

During 1997, our Reserve component deployed during every contingency tasking. In 1997, our Air National Guard and Air Force Reserve air crews served an average of 100 days in uniform with their support teams averaging 80 days.

QUALITY OF LIFE

Strengthening the quality of life for all of our airmen must, therefore, be our highest enduring priority. We owe it to our airmen to ensure that their faithful service is rewarded with pay, housing, medical, and community support services that meet their needs.

Over the past year, we have worked hard to decrease the stress of deployments. We have increased the amount of time our men and women in home stations can spend with their families after deployment, and we have improved family support during times of deployment.

For example, we have reduced the Air Force participation in joint exercises by about 15 percent and we have tried to combine our own operational readiness inspections with other operational activities.

We have also tested an ombudsman program at five Air Force bases to assist families of deployed airmen. In addition, in 1999 we will continue our efforts to improve dormitories and family housing, increase child care spaces, and provide teen and family centers.

About one-third of our Milcon budget is devoted to these quality of life improvements.

We are also working hard on readiness, which is absolutely essential to support the respond portion of the QDR strategy. Today, 91 percent of our units are at readiness ratings of C-1 or C-2, with our front-line units in PACAF and USAFE significantly higher. However, some readiness indicators are dropping. Our mission capable rates, for example, have declined 6.8 percent since the gulf war. Engine readiness has also been a major problem. And as Gen-

eral Ryan will discuss in more detail, pilot retention remains an extraordinarily grave concern.

The reasons for these declining readiness indicators are, in fact, very complex and go beyond money.

With respect to engines, turmoil in our air logistics systems work force, coupled with a shortfall in spare parts funding in 1997, have caused lower than average productivity. Elsewhere, about one-third of our depot work is moving to new locations with attendant disruption.

EQUIPMENT MODERNIZATION

Across our fleet, old age has increased the difficulty of keeping aircraft running and has raised the cost of readiness. To overcome these challenges we increased our readiness-related funding in 1998 and also in 1999. We also plan in the current program to fund additional engine modules for the F-15 fleet and to fund new engines for our RC-135's.

We have also started an engine recovery program and this month will activate a TF39 engine repair facility at Travis Air Force Base in an effort to improve the reliability of our C-5 fleet.

Later this year, the F-100 engine core workload will begin transferring to a more stable work force at Oklahoma City. Finally, we are upgrading our old equipment. For example, in fiscal year 1999, we plan to invest in the PACER CRAG Program, which upgrades avionics suites on 191 KC-135's with state-of-the-art glass cockpit systems.

We have also programmed over \$500 million for C-5 engine and avionics upgrades.

We are optimistic about the result of these changes, but it will take time to see the effects.

Ultimately, our readiness improvements will depend on modernization. In this regard, we have increased procurement funding for our breakthrough capabilities identified in the QDR and the national defense panel, such as the F-22, the airborne laser, SBIRS, and EELV.

We are also funding programs to defend against the asymmetric threats identified by the national defense panel report. For example, in 1999, we will invest approximately \$225 million in passive chemical/biological defensive measures and in the area of \$150 million in active defensive measures.

In addition, as part of our defense in depth against cyber attack, we have implemented the automated security incident measurement system at all 108 Air Force bases to detect network intrusions, and we are working on installing firewalls.

To fund this modernization effort, the Air Force has achieved significant cost reductions through ongoing efforts to bring about a revolution in business affairs. Since 1995, we have cut headquarters manning by 1,700 positions. Through the recent C-5 depot competition, we should save \$190 million over the next 7 years.

Recent and planned A-76 competitions will yield savings of over \$1 billion, and acquisition reform has saved \$7 billion and avoided over \$11 billion in additional costs.

This year's Air Force posture statement is itself tangible proof of how we are saving resources. Last year, we produced 20,000 paper copies. This year, using electronic publishing, we produced less than 2,000 paper copies and put a downloadable copy on the web.

There is still, however, much more that needs to be done. We continue to pay for excess support structure. Prudent BRAC decisions are vital to our ability to bring our infrastructure into line with our force structure. We need Congress to approve two more rounds of BRAC in 2001 and 2005.

Simply put, BRAC is tomorrow's readiness decision that we must begin making and planning today.

Finally, the administration, I believe, this morning has submitted its emergency nonoffset supplemental for consideration by this committee and the House to cover the unfunded costs of Bosnia and other operations in fiscal year 1998 and the total costs of Bosnia for fiscal year 1999.

The Air Force portion of that is just over \$400 million in each year to cover our costs. Once this emergency supplemental is submitted, we urge congressional approval quickly so that we can plan effectively and avoid disruption to our readiness and modernization accounts.

Your support is absolutely essential if we are to transform the world's premier air and space force of today into an indispensable aerospace force of the 21st century. As we plan for the future, our principal focus will be on building a seamless, total aerospace force, one that is ready to meet the challenges of the QDR whenever and wherever they are presented.

Again, I thank you for the opportunity to meet with you today and after General Ryan has had a chance to address the committee, we will be happy to take your questions.

DEPLOYMENT CHALLENGES

Senator STEVENS. Thank you, sir.

General.

General RYAN. Good morning, Mr. Chairman and distinguished members of the committee. I am pleased to join you today, along with the Secretary, and I would like to thank you for your continued support of the Air Force.

Today we are globally engaged and, as we speak, there are almost 15,000 Air Force members deployed and in support of contingency operations around the world: 9,000 in Southern Watch in Southwest Asia and another 1,000 in Northern Watch; 3,000 in Bosnia; and the rest support about 11 other contingencies ongoing.

This represents a fourfold increase in the deployments since the end of the cold war with over 35 percent fewer personnel to cover those commitments.

More than ever, the U.S. Air Force is an expeditionary force. Our Air Force men and women are meeting every challenge they face with a consummate commitment that reflects service before self.

Many of our members will spend 1 out of the next 3 years deployed in support of contingencies. It is our job. But our continuing deployment tempo highlights the force infrastructure mismatch which has been created over the past 10 years.

I have just returned from Southwest Asia, where I had the opportunity to visit with many of our young men and women serving there. You would be proud of their professionalism and their unsung sacrifices. For the most part, they live in austere conditions. The majority are in tent cities which they erect and maintain, sleeping 8 to 10 to a tent. Privacy is minimal. Trust is essential. The hardships shared are foundations for enduring relationships.

They are very proud and they do their job monitoring the no-fly zone in Iraq, ready for any contingency we can throw at them, flying the aircraft, fixing the aircraft, and keeping their morale up.

For their commanders, each morning brings the hope of discovering new ways to make things better for the young men and women who live there. Each day brings new operational challenges and successes, and each night brings the realization that the next day could bring combat.

The 15,000 people who are currently deployed in contingency operations rotate in and out of their original home bases. It has been that way since the early 1990's, with Iraq, Bosnia, African and humanitarian operations, and others.

I do not see a major change in the way of doing business that we have experienced over the last 8 years. In effect, we are operating many additional bases without the resources or people to make up the difference. So the home station people feel the OPTEMPO as well as those who are deployed. In effect, we are taking this out of hide.

Bases do not get additional personnel to make up for those who are deployed in order to keep the base running. The workload just increases on those who remain. The bases must still be guarded, the remaining aircraft maintained, and the families still need medical care and attention, and the remaining personnel must still train.

We need to restructure our Air Force to deal with this tempo by consolidating our forces into larger bases, more robust bases, that have the breadth and depth to support both deployed operations and operations at home base.

For that reason alone, we need BRAC legislation, not to mention the savings that accrue for the future.

We also must take action to fend off the adverse effects of tempo that is evident in our readiness rates and retention. As Mr. Peters said, our overall readiness is still high, but we are beginning to see some adverse trends. Mission capable rates of our operational flying units have dropped in the last 8 years, since the gulf war, by about 7 percent.

EQUIPMENT UPGRADES

I attribute that to the aging nature of our aircraft fleet. In 1999, the average age of our Air Force aircraft will be 20 years old. Predicting breakage is getting harder and harder. That is why modernization is so important for our future readiness.

Three systems under development are very important for us to remain the preeminent aerospace force into the 21st century: the F-22; the Joint Strike Fighter; and the airborne laser [ABL].

These systems are vital to ensuring that our young men and women always have the advantage of technologically superior

weapons. We never want a fair fight. The F-22 possesses stealth; the ability to supercruise; has integrated avionics; and large air-to-air weapons payload, which makes it the dominant aircraft for air superiority into the 21st century. It allows all our forces, and not just Air Force forces, the freedom to operate where we choose and when we choose.

The integration of air-to-ground capability in the F-22 could also make it our high-end attack aircraft as well.

The Joint Strike Fighter, or JSF, will provide a less expensive, multirole partner for the F-22. The F-22 and the Joint Strike Fighter are intended to be complementary, not substitutable. Together, they represent a synergistic high-low mix because the F-22's ability to gain air dominance makes it possible for us to design the Joint Strike Fighter as a multirole aircraft, which is less capable and, therefore, less costly.

Finally, we are developing the airborne laser to provide protection for our forces against theater ballistic missile threats.

The ABL system provides the Nation with a rapidly deployable global capability that this Nation needs to be able to defend against theater ballistic missiles. It will be a key component of our missile defense architecture necessary to counter that threat.

At the same time, we must continue our migration into space. The Air Force is proud to be the leading military force in the use of space and we will continue to be good stewards of space. The key to protecting and exploiting space will be the seamless integration of our assets. We plan to migrate those functions to space which offer better capabilities when accomplished in space.

This transition and tradeoff will be done as technology makes it both physically and fiscally possible.

RETENTION METHODOLOGY

While modernization is very important to tomorrow's readiness, retaining quality people is the key factor in maintaining readiness now and in the future. While enlisted retention rates are down slightly, and we must improve in that area, our biggest concern is pilot retention. It represents the majority of our front-end, warfighting capability. We simply must retain more of these selfless warriors as well as our combat and support personnel who go into harm's way to support our national commitments.

We have worked hard with your help to counter this trend. One of the indications of future retention shortfalls is our pilot bonus acceptance rate. Last year, 33 percent of the eligible pilots took the long-term commitment offered with the bonus and another 10 percent took shorter options. While this is below our target of 50 percent, we are hopeful that this legislation will assist us even more this year and provide us a stepping stone to improve our retention into the future.

We are focusing on several other areas to counter our retention decreases. They include reducing the effects of this OPTEMPO on our forces, improving care for our families, improving quality of life and improving the support programs. Our experience since the fall of the Iron Curtain has reinforced the lessons about the pivotal nature of air and space power, power which maximizes the flexibility

of the military and allows solutions to national security threats with less risk to American lives.

We want to ensure the U.S. Air Force remains the preeminent air and space power in the world we are today, and our deployed men and women are confident in their mission, their equipment, and their own capabilities.

PREPARED STATEMENT

We thank this committee for your support in making that happen in the past, today, and in the future.

Sir, that ends my statement. The Secretary and I are prepared for your questions.

[The statement follows:]

PREPARED STATEMENT OF HON. F. WHITTEN PETERS AND GEN. MICHAEL E. RYAN

AIR FORCE ROLE IN NATIONAL SECURITY

Mr. Chairman, members of the committee, 1997 was a defining year for U.S. defense policy. Together, the Quadrennial Defense Review (QDR) and the independent analysis by the National Defense Panel (NDP) significantly raised the level of defense debate. Each of these undertakings will undoubtedly have far-reaching defense policy implications. We are proud of our Service's contributions to these efforts.

The Quadrennial Defense Review

One of the most significant outcomes of the QDR was the emergence of a new national military strategy. That strategy includes a new special emphasis on the critical importance of an early, decisive halt to armed aggression to provide wider options for the use of military force and to create a window for diplomatic resolution of a crisis. This new strategy is also reflected in the President's National Security Strategy, the Secretary of Defense's Defense Planning Guidance, and the latest edition of the Chairman of the Joint Chiefs of Staff's National Military Strategy. It is heavily dependent on the speed, range, agility, and overwhelming firepower of aerospace forces.

One of the greatest strengths of aerospace forces lies in their ability to project lethality with less vulnerability. With the advance of technology, a more agile aerospace force can substitute for large, slow-arriving forces and deliver more firepower in the process. This capability minimizes the number of friendly casualties, helps to solidify political support for military action, both at home and abroad, and buys critical time for diplomatic initiatives and potential follow-on military actions. This rapid halt capability also minimizes the amount of territory that would have to be retaken should a counteroffensive be necessary. We firmly believe this strategy to be appropriate, cost-effective, and consistent with American values.

Another important aspect of the QDR was the reaffirmation of the importance of the total force. We embrace the total force concept—we depend on it. Air National Guard and Air Force Reserve forces provide the necessary wherewithal for our Service to effectively accomplish its entire range of military missions.

We are implementing a balanced, time-phased modernization program to build the force necessary to meet the requirements of the QDR strategy and enable the successful conduct of joint warfare in the 21st century. To help fund this modernization, we are taking steps to achieve personnel, business, and force structure efficiencies. The QDR reminded each of the Services that in fitting our force structure to future needs, we must make hard, but necessary recommendations on infrastructure. We will need the support of the Congress to implement these recommendations. Dollars saved through these actions will be invested in Air Force modernization, providing the nation with a force fully prepared for the increasingly complex and diverse security challenges of the future.

The Report of the National Defense Panel

The National Defense Panel articulated several desired military capabilities to meet their postulated future national security challenges. Many of these capabilities are present in today's Air Force, or will be in the aerospace force planned for the future. For example, the panel recognized the imperative to achieve air superiority

against an enemy's air-to-air, surface-to-air, ballistic and cruise missile threats. We are fielding the F-22 and the Airborne Laser to address this need.

The Panel also observed that projecting military power on short notice into the backyard of a major regional power demands forces that can deploy rapidly, seize the initiative, and achieve national objectives with minimal risk of heavy casualties. Aerospace forces possess these capabilities. We believe they will be increasingly called upon in the future.

The NDP recommended an increased emphasis on information systems (including situational awareness) and information operations; a migration to unmanned and space-based systems; a lighter, more mobile force; and greater emphasis on precision, speed, stealth, and long range strike. The Air Force program stands up well when measured against this template because our corporate vision statement—Global Engagement: A Vision for the 21st Century Air Force—articulates the importance of many of these same priorities.

Global Engagement

Global Engagement addresses the range of Air Force activities—operations, infrastructure, and personnel—to provide a comprehensive map to shape the Air Force during the first quarter of the 21st century. It defines the Air Force core competencies which stem from the speed, global range, precision, flexibility, unparalleled access, and awareness afforded by aerospace forces—competencies that contribute to the Chairman of the Joint Chiefs of Staff's Joint Vision 2010 goal of Full Spectrum Dominance. Global Engagement establishes the vector our Service will follow into the 21st century. The guidance provided by Global Engagement, in conjunction with our long range planning efforts, form the prism through which we view our near-, mid-, and far-term priorities.

The priorities outlined herein represent our three-fold commitment: first, to maintain a ready and capable force to conduct our contemporary military mission; second, to size, shape, and streamline our Service to implement QDR guidance; and third, to continue the evolution of our aerospace force to provide the capabilities necessary to protect America's security interests into the next millennium.

CONTEMPORARY AIR FORCE OPERATIONS

Readiness

The Air Force is expected to maintain a high state of responsive readiness across the force due to the critical need to get aerospace power rapidly to any crisis. During peacetime, high readiness gives us the flexibility to deploy a tailored force anywhere in the world in response to emerging crises—to gather essential intelligence, deter potential enemies, protect friendly forces and U.S. citizens, apply force, or provide humanitarian aid. Airlift, tanker, fighter, bomber, space, communications, reconnaissance, intelligence, and many other Air Force units are also the first forces called upon in wartime. Aerospace power is vital to rapidly halt advancing enemy forces, and critical to the success of a Commander in Chief's (CINC) extended campaign plan.

We judge readiness through objective and subjective assessment of several interdependent elements which include personnel, equipment, training, logistics, and financial resources. A shortfall in any of these areas will negatively impact our overall readiness level. Maintaining high readiness in today's environment poses the challenge of balancing present requirements with the need to acquire new technologies and modernize current systems for the future.

Since 1986, the Air Force has downsized by nearly 40 percent, while military operations other than war have greatly increased. In 1989, our Service averaged 3,400 personnel deployed daily for contingencies and exercises. Since the conclusion of the Gulf War, that average has grown over fourfold to 14,600 in fiscal year 1997. For the foreseeable future, aerospace forces are likely to remain in high demand.

We have taken several steps as a Service to mitigate the effects of our high TEMPO, such as reducing deployment lengths, reducing the number of headquarters inspections of units, and instituting standdowns after lengthy deployments. Additionally, we have introduced the use of a TEMPO tracking system and associated metrics to better manage the TEMPO of our airmen. This tool gives us an accurate way to identify and address TEMPO problems before they occur.

While 91 percent of our active and Air Reserve Component units are maintaining good readiness levels, caution indicators have surfaced in some areas—most notably, pilot and navigator retention have decreased markedly, some critical second-term reenlistment rates are declining, and we are dealing with some serious engine and spare shortages. We are taking steps to address each of these readiness challenges.

Today, our Air Force remains the best in the world and ready to answer the nation's call. The pace of current operations has required our people to work harder, smarter, and longer hours to maintain our readiness and they have risen to the challenge. However, the combination of several eroding trends have peaked our concern regarding current and future readiness working harder, smarter, and longer is not enough. We will continue to pursue a family of initiatives to protect Air Force readiness our contract with the CINC's.

Operational Risk Management

Maintaining our combat edge depends on our ability to train realistically and safely. This involves accepting, but managing risk. Fiscal year 1997 was the second safest year in our history in the categories of ground fatalities, Class A flight mishaps, and flight fatalities. We are working to keep these numbers low by continuing to make mishap prevention an integral part of the mission by emphasizing Operational Risk Management (ORM).

ORM is key to maintaining readiness in peacetime, dominance in combat, and a crucial component for force protection. It is a decision-making tool to systematically identify risks and benefits and help determine the best courses of action for any given situation. ORM is designed to enhance mission effectiveness by minimizing risks in order to reduce mishaps, preserve assets, and safeguard the health and welfare of our people. Although historically our Service has been very successful in executing its mission with minimum losses, there is still room for improvement both in terms of mission accomplishment and mishap prevention as our low mishap rates have "plateaued." This fact reinforced our decision to implement the ORM process Air Force-wide.

Proper application of the ORM process and tools will minimize all dimensions of risk and reduce mishap rates without compromising mission objectives. We are emphasizing ORM in multiple educational programs and have initiated formal education and computer-based training to instruct our people in the use of ORM. All Air Force personnel should receive this training by 1 October 1998.

The Total Force

Today, more than ever, the Air Force relies on its total force—Active Duty, Air National Guard, and Air Force Reserve working together to meet today's peacekeeping and wartime commitments. The total force was used extensively during 1997 as Air National Guard and Air Force Reserve forces participated in every major deployment and contingency tasking. This trend will continue as Guard and Reserve forces play an increasing role in a variety of worldwide operations.

Air National Guard and Air Force Reserve aircrew members serve an average of 110 days a year in uniform. During 1997, an average of 6,000 Guard members and Reservists were deployed each month to support exercises, contingencies, and military operations around the world. On a volunteer basis, members of the Air Reserve Component deploy on a rotational schedule, helping to reduce active duty TEMPO without jeopardizing their civilian employment.

In some cases, the Guard and Reserve are paired together to provide extended support to the active force. An example of a joint Guard and Reserve mission is the 24 July to 25 October 1997 deployment to perform sustainment airlift from Ramstein Air Base, Germany, to the forces in the Balkans. Other major deployments in 1997 included the deployment of security forces to Saudi Arabia; the deployment of civil engineers, firefighters, and Air National Guard air traffic controllers to Tazsar, Hungary, as part of Operation Joint Guard; the use of KC-135's to refuel fighter aircraft enforcing the no-fly zone over Bosnia; and the use of F-15's and F-16's to enforce the no-fly zone over Northern Iraq, as well as the use of rescue crews to provide combat rescue support for those forces. The Air National Guard and Air Force Reserve also participated in over 60 exercises worldwide.

In addition to officially becoming a major command on 17 February 1997, the Air Force Reserve expanded its missions in several areas. For example, in January 1997, an associate undergraduate pilot training program was initiated at Columbus AFB, Mississippi, and Vance AFB, Oklahoma. This program employs full-time and part-time Reserve airmen as instructor pilots to offset a shortfall in active duty instructors. The Reserve is also conducting a three year study to determine the feasibility of integrating Reserve pilots and maintenance personnel into active duty fighter squadrons.

In May 1997, associate AWACS crews from the Air Force Reserve Command's 513th Air Control Group (ACG) at Tinker AFB, Oklahoma, participated in their first operational deployment—testing the Western European integrated air defense system in exercise Central Enterprise 97. Since beginning operations in March 1996, 513 ACG personnel have performed over 2,000 man-days of service, alleviating some

of the TEMPO of our active duty crews. These Reservists also prove invaluable at home station by performing various duties such as preparing aircraft for upcoming missions and performing supervisor of flying duties. The associate AWACS Reserve unit also provides a way for the Air Force to retain its investment in highly trained personnel who would otherwise be lost separating from active duty.

In September 1997, the Air Force Reserve Command's 8th Space Operations Squadron (SOPS) and the 310th Space Group were activated at Falcon AFB, Colorado. The 8 SOPS provides near-real time backup support to the primary Defense Meteorological Satellite Program operations conducted by the National Oceanographic and Atmospheric Agency.

In October 1997, the 439th Security Forces Squadron (SFS) at Westover Air Reserve Base, Massachusetts, achieved full operational capability. The Reservists of the 439 SFS augment the 820th Security Forces Group at Lackland AFB, Texas, with a deployable force protection unit.

In 1997, the Air National Guard flew over 3,200 readiness support airlift missions, 700 airborne transport missions, 500 fighter deployment air refueling missions, and performed a variety of other challenging missions. For example, in October 1997, three 153rd Airlift Wing C-130 aircraft, crews, and support personnel from the Wyoming Air National Guard deployed to Jakarta, Indonesia, to fight widespread forest fires. The crews flew hundreds of hours during their 60 day deployment using their specially equipped C-130's to suppress fires over a 3.5 million acre area. During their deployment, the 153rd extinguished more than 70 fires in open forest areas in the face of incredible challenges posed by heavy smoke and extremely dry conditions. This support allowed the Government of Indonesia sufficient time to develop an effective firefighting plan of its own and organize follow-on indigenous and commercial support to battle the remaining fires.

In 1997, we transferred several new missions from the active component to the Air National Guard including the operation of a mobile ground station by the 137th Space Warning Squadron of the Colorado Air National Guard and an increased share of the international military flying training program.

Air National Guard and Air Force Reserve personnel remain an integral part of our total force as they work side by side with active duty airmen to accomplish the Air Force mission.

Force Protection

We are committed to taking the necessary steps to protect our people. We have addressed and corrected the deficiencies identified by the Downing Commission and strengthened our force protection posture throughout Southwest Asia. This included the rapid deployment of additional security forces to Saudi Arabia to relocate our people after the Khobar Towers tragedy. These forces assisted with moving airmen from Dhahran to Prince Sultan Air Base in Al Kharj and military and non-combatant personnel from vulnerable facilities in Riyadh to a more secure location outside the city. We have also enhanced our force protection equipment and integrated intelligence assets and are adjusting our doctrine, strategy, policies, and training accordingly. Additionally, we are expanding the scope of our force protection program to address our growing Aerospace Expeditionary Force (AEF) requirements.

In 1997 we established the Air Force Security Forces Center at Lackland AFB, Texas, comprised of the 820th Security Forces Group (SFG) and the Air Force Force Protection Battlelab. The 820 SFG is a rapidly deployable, self-contained unit integrating essential force protection functions provided by security forces, intelligence, Office of Special Investigation, medical, communications, and engineering personnel. This organization provides AEF commanders with the flexibility to tailor a force protection package to meet the needs of their deployed location. Today, squadron-sized security forces units deploy with each AEF to provide a comprehensive stand-alone security and antiterrorism force protection capability. Equipment like the Tactical Automated Security System, which uses motion and thermal detection capabilities for perimeter defense, is used to enhance installation commanders' force protection situational awareness. In 1997, the 820 SFG deployed three times: twice to Bahrain to support the 366th Air Expeditionary Wing (AEW) and the 347 AEW, and once to Egypt to support the Bright Star exercise.

The other component of our force protection program is the Force Protection Battlelab. This battlelab is a compact, multi-disciplinary "think tank" chartered to objectively examine force protection concepts to identify and define unmet needs. Once needs are identified, the battlelab searches for creative, near-term solutions through modeling and simulation, changes in training or policy, available or easily modified technology, or possible new uses for existing technology. The Force Protection Battlelab has three ongoing initiatives. The first aims to improve security at the South American ground-based radar sites that support counter-drug operations.

The battlelab is exploring new ways to use existing thermal imagers to expand current perimeter monitoring capabilities. The second initiative involves exploring the use of unmanned aerial vehicles to provide defense force commanders with real-time ground situational awareness. The third initiative deals with increasing our ability to detect vehicle explosive devices by using different configurations of existing commercial off-the-shelf detection capabilities.

We will continue to emphasize investments in force protection technology and its applications to provide a safer environment for our airmen as they conduct operations worldwide.

Sustained Theater Operations

Since the NATO-led Operation Joint Endeavor/Joint Guard began on 20 December 1995 to maintain the peace between the formerly warring factions in Bosnia-Herzegovina, we have maintained over 2,900 personnel in direct support of this operation and flown over 4,200 missions—25 percent of the coalition total. Our missions include close air support, combat air patrol, suppression of enemy air defense, air refueling, combat search and rescue, and intelligence collection sorties. We have also deployed space support teams to furnish critical space-based communications, weather, navigation, and missile warning support to the coalition forces.

In Southwest Asia we have deployed over 7,000 personnel since August 1992 and have flown over 110,400 sorties—70 percent of the coalition total—in support of Operation Southern Watch to ensure continued Iraqi compliance with the April 1991 United Nations Security Council Resolution (UNSCR) 688.

Similarly, we have deployed over 1,200 personnel and flown over 3,325 sorties—72 percent of the coalition total—in support of Operations Provide Comfort and Northern Watch to enforce the no-fly zone over Northern Iraq. Additionally, our space support teams are integrated into the combined air operations center to provide deployed forces with support from our space-based assets.

Southwest Asia continues to be a very volatile region. Our AEF's have proven to be an effective tool to strengthen relations with coalition partners and respond to crises.

Aerospace Expeditionary Forces

Our Service is exploring and refining concepts of operations and logistics associated with the deployment and employment of AEF's. We tailor AEF employment packages that provide CINC's with the necessary command, control, mission, and support elements to create a desired operational effect within 72 hours of initial notification to employ forces. Our first AEF deployed in October 1995 to supplement Operation Southern Watch. In 1997, we deployed five AEF's for exercises and contingencies. In each case, we created a tailored AEF by combining an appropriate mix of squadron-level units. By varying the mix, an AEF can support a broad range of missions, from humanitarian relief to contingency operations.

In the combat configuration used in Southwest Asia, our AEF can produce 70–80 combat sorties a day and may include bombers employed from a home station or forward operating location. This AEF's portfolio includes air-to-ground, air-to-air, suppression of enemy air defenses, air refueling, and intelligence, surveillance and reconnaissance assets. AEF's provide CINC's with a wide range of airpower options to meet their specific theater needs. Additionally, the AEF's ability to rapidly and decisively project aerospace power into a theater of operations will allow greater flexibility in determining the forward deployed forces necessary to meet a CINC's requirements.

We are institutionalizing this expeditionary mindset within our Service's culture by emphasizing the fundamentals of expeditionary warfare in our exercises and training. This includes rapid crisis response, an ability to operate out of austere bed-down locations with minimum initial support, robust and secure C² linkages, robust force protection, and rapid, effective employment. In this way, our forces focus their logistics techniques to determine the absolute minimum support required to deploy rapidly and employ immediately upon arrival.

To supplement our field tests, the Air Force AEF Battlelab is exploring several ideas to improve our expeditionary capabilities. One initiative is to demonstrate the use of commercially available equipment to calibrate targeting and sensor systems on multiple aircraft platforms. The current calibration systems are unique to each aircraft, require extensive logistics support, and can only be used in controlled environmental conditions. This battlelab initiative would use a calibration system common to all aircraft that requires less logistics support, less set up time, and operates under any environmental condition. We conducted a successful field demonstration of this system last year during an AEF deployment and continued to refine our expeditionary capabilities during deployments to Southwest Asia.

In October 1997, the 366 AEW from Mountain Home AFB, Idaho, deployed F-15's, F-16's, B-1 bombers, and KC-135's to Shaikh Isa, Bahrain. During its deployment, the wing flew 444 sorties in support of Operation Southern Watch. Later that month, the 347 AEW deployed to the Middle East in response to Saddam Hussein's refusal to comply with United Nations mandated weapons inspections. This AEF deployed on short notice and included F-15's, F-16's, B-1's, KC-135's, and an Army Patriot battery. These forces joined F-117's and B-52's already in theater to provide the CINC with highly flexible airpower options.

Maintaining an internationally recognized ability to deploy rapidly, execute upon arrival, and sustain complex operations will significantly enhance our ability to deter potential adversaries. We currently have the capability to conduct both lethal and non-lethal AEF operations worldwide. For the long-term, we expect AEF's to continue to mature as effective tools for crisis response and cooperative engagement with potential coalition partners.

Cooperative Engagement

An expectation that the U.S. military will need to be able to incorporate the military capabilities of friends and Allies makes it essential for us to broaden our relationships with the militaries of other countries. These ties facilitate cooperation with the U.S. when crises arise, whether this be the need for quick overseas basing access, or the need to build a coalition of willing and capable allies. We are committed to cooperative engagement programs and initiatives that increase mutual understanding and enhance interoperability.

During the 1990's, Air Force Special Operations Command (AFSOC) forces conducted over 150 operations in 22 countries, including over 30 exercises in the Pacific and numerous military-to-military training events in Latin America, Africa, and Europe. AFSOC special tactics teams often help train foreign militaries in subjects such as air operations, combat medicine, air traffic control, and airbase defense.

Recently, the focus of our cooperative engagement and stability enhancement efforts have been in our Partnership for Peace (PfP) participation, our Military Contact Program, the Armaments Cooperation Program, and our Security Assistance efforts, which include Foreign Military Sales (FMS) and International Military Education and Training (IMET).

In 1997, our Service participated in over 20 exercises with approximately 25 PfP countries and conducted over 200 focused Military Contact Program events in Europe alone. We maintain 220 agreements under the Armaments Cooperation Program in an effort to encourage the exchange of information with our coalition partners. These involve cooperative research and development, scientist and engineer exchanges, equipment loans, and scientific and technical information exchanges.

Additionally, our FMS program is currently managing over 4,600 active contracts for aircraft, spare parts, munitions, and training totaling over \$107 billion, while the IMET program continues to provide all types of training—from flying training to professional military education. In 1997 over 5,000 foreign military members representing approximately 100 countries received some form of training under the IMET program.

In April 1997, our Service hosted a gathering of the leaders of the world's air forces. Eighty-four air chiefs participated in this "Global Air Chiefs Conference," a truly landmark event. General Peter Deynekin, then Commander of the Russian Air Force, characterized it as one of the most significant events of the 20th century. The significance of the conference lies in the fact that despite widely differing languages and customs, each of the air chiefs shares an appreciation for the unique capabilities of airpower and for the revolutionary capability that can be achieved when space-based assets can be effectively integrated into aerospace operations.

Space Operations

An ability to conduct missions better from space will certainly benefit all U.S. forces. Space operations figure prominently in our plans for the future. Our joint-use space-based systems are increasingly responsible for the information stream and global awareness that we cannot take for granted. In particular, 1997 saw the Air Force and the National Reconnaissance Office achieve unparalleled levels of cooperation in enhanced space support to theater warfighters and National Intelligence users. Today, it is difficult to contemplate how a significant U.S. military operation could function without integrated space-based support.

That range of support is gradually becoming transparent to the users. Our aircrews rely heavily on intelligence and weather data derived from space systems. The command and control of air, land, and sea forces is melded together with space-based communication. Navstar Global Positioning System (GPS) satellites guide aircraft and weapons precisely to targets and help avoid collateral damage. In the fu-

ture, near-real time targeting sent from sensors directly into the cockpit will allow us to improve our aircrews' lethality.

1997 was the busiest year thus far for Air Force space operations. Our two major ranges, Vandenberg AFB, California, and Patrick AFB, Florida, conducted 45 successful space and missile launches, including range support and support services for every government and commercial launch of the Space Shuttle, Pegasus, Atlas, Delta, Titan IV, and Athena II boosters. In addition, our Satellite Control Network maintained a 99.5 percent mission effectiveness rate with over 159,000 satellite contacts.

On 23 February 1997, the first Titan IVB was launched to insert a Defense Support Program (DSP) missile warning satellite into orbit. The Titan IVB's upgraded solid rocket motors give it a 25 percent increase in payload capacity as well as greater reliability. On 7 November 1997 our Service set a new mark with the third successful launch of America's heavy lift Titan IV within a 23 day period, eclipsing the previous record of 65 days set in 1996. The Titan IV has a 95.7 percent success rate since launching the first of 23 mission payloads into space in June 1989.

Despite the failure of a Delta II launch vehicle in January 1997, there was a total of 10 successful Delta launches in 1997. These included the launch of a next-generation GPS satellite in July 1997 to replenish the GPS operational constellation of 24 satellites and ensure that a continuous GPS signal will remain available for precise navigation operations worldwide.

In the area of military satellite communications, MILSTAR satellites are now providing secure, jam-resistant, nuclear-survivable command and control communications to the East Atlantic and European theaters. In Bosnia, the Joint Broadcast System used direct satellite broadcasts to transmit live unmanned aerial vehicle images and other large digital products to theater commanders and supporting forces—dramatically increasing their global situational awareness. Meanwhile, the Global Broadcast Service is progressing toward its first launch in 1998 and will give our forces similar broadcast services worldwide.

Today, without question, space-based capabilities are a vital component that we depend on for the success of joint military operations. Recently, the Air Force, the National Reconnaissance Office, and the Defense Advanced Research Projects Agency, have all agreed to have a joint space-based Moving Target Indicator demonstration using technology, expertise, and resources from all three. Enhancing space support to the warfighter remains a top priority for our space operators.

MAINTAINING A QUALITY FORCE

People remain our most vital resource. The intense demands placed on our airmen of all ranks as they perform Air Force missions around the world require special individuals who are highly motivated, well trained, and responsibly led.

Recruiting Quality People

We are committed to recruiting and retaining the high caliber people necessary to lead our Service into the 21st century. In fiscal year 1997 we achieved our recruiting goal of 30,200 recruits—99 percent of whom were high school graduates. We were also successful in reenlisting 110 individuals to fill critical specialties who had previously left the Air Force. To date, new enlistment contracts for fiscal year 1998 are running slightly ahead of our target—but recruiting remains a challenge. Ample opportunity to attend college, a robust economy with low unemployment, military drawdowns, and highly visible U.S. commitments abroad have decreased the pool of interested, qualified potential recruits. Annual youth attitude surveys show the interest of young men in serving in the Air Force has dropped from 17 percent in 1989 and has stabilized at 12 percent. The interest of young women in serving has remained relatively constant (around 7 percent) over the same period; however, we did see a 1 percent drop in fiscal year 1997.

Despite the fact that we have been able to recruit adequate numbers of personnel, there has been a decrease in the number of enlistees scoring in the top half on the Armed Forces Qualification Test, down from 88 percent in 1989 to 79 percent today. To address this trend, we have directed our recruiters to concentrate their efforts on the college and college-bound candidates. Additionally, it is becoming increasingly difficult to fill the mechanical, pararescue, and combat control career fields. To improve our success in manning these specialties, we have directed a larger portion of our advertising budget toward the technical market and have raised enlistment bonuses in the most difficult-to-fill skills. Overcoming these recruiting challenges is essential to maintain the caliber of airmen necessary to effectively serve in our technologically sophisticated aerospace force.

Developing the Airmen of the Future

After we recruit and induct young airmen, we invest in their education and training to prepare them for today's demanding operational environments and for future challenges. The high standards of behavior expected of our personnel demand a strong moral and ethical foundation. On 1 January 1997, we published an Air Force Core Values pamphlet. Air Force core values—integrity first, service before self, and excellence in all we do—apply to all airmen of the Air Force, whether officer, enlisted, civil servant, or contractor.

Our people are living these values every day. Like the members of the 31st Civil Engineer Squadron and 31st RED HORSE flight from Aviano Air Base and Camp Darby, Italy, who assisted with local disaster relief after earthquakes devastated central Italy. Or the members of the 9th Reconnaissance Wing at Beale AFB, California, who volunteered countless hours to help 9,000 area residents displaced by massive flooding—volunteers who provided victims with food, shelter, and medicine and went the extra step to comfort frightened children with toys, cookies, and a friendly smile. This scene was repeated by the men and women of Grand Forks AFB, North Dakota, who assisted over 25,000 flood victims in that area.

Strong core values bind our people together and demonstrate to the American people that our military forces are worthy of their trust and support. Air Force men and women exhibit integrity, selflessness, and excellence every day, in every corner of the world, working side by side to accomplish their mission. This effective working relationship begins on the first day of basic training and is reinforced by integrating core values into every aspect of our education and training programs.

Gender-Integrated Training

Every year our Service trains more than 30,000 basic trainees—24 percent of our graduates are women. The Air Force has successfully employed gender-integrated basic training since 1976.

In late 1997, Senator Kassebaum-Baker's advisory committee on gender-integrated training released its report, calling for changes in the structure of basic and operational training. We are currently reviewing our training practices in light of the Kassebaum report, and will forward our recommendations to the Secretary of Defense in March 1998. As part of this effort, we are reevaluating our basic training physical conditioning program to ensure it meets the needs of our airmen and the needs of the Air Force.

Leadership Training

As an expeditionary force, we must assure the development of "warrior-leaders" who can successfully lead air forces and others with a wide variety of capabilities into a hostile, austere environment. To win in combat, the development of warrior-leaders is every bit as important as fielding the increasingly sophisticated weapon systems necessary to fight a war. The superior technology the United States can bring to bear will only be successful if we have trained, capable leaders to employ it.

As a result, leadership preparation continues to be a cornerstone of our education and training programs. To supplement leadership preparation provided in the various levels of professional military education, additional training is provided by major commands for individuals selected as squadron commanders and by Air University for individuals selected as group or wing commanders. This training covers the everyday aspects of command such as military and civilian personnel management, resource management, legal issues, and complaint processing. Our highest level of leadership training occurs in the Senior Leader Orientation Course where new brigadier generals and civilian equivalents receive training on key issues and on how to be effective representatives of the Air Force.

Aircrew Training

The Air Force is the lead Service for the Joint Primary Aircraft Training System (JPATS) program. This joint Air Force and Navy program is acquiring 372 JPATS aircraft for the Air Force, with deliveries beginning in 1999. The T-6A Texan II will replace the aging T-37's and vastly improve our undergraduate flying primary training capability. The T-6A incorporates several features that are not on current Air Force and Navy trainers. Improvements include: missionized ejection seats, improved birdstrike protection, electronic flight instrumentation and digital cockpit display, pressurized cockpit, and flexibility to accommodate a wide range of male and female pilot candidates. We are also modernizing our T-38 fleet, allowing pilot candidates to train on modern avionics representative of the front line systems they will eventually fly in combat.

To address the growing pilot shortage, we plan to increase our yearly pilot production from 900 pilots per year to 1,100 pilots per year by fiscal year 2000. We are also examining various alternatives to maximize the utilization of our T-38 fleet. Our increase in pilot production has resulted in a corresponding shortfall in active duty instructor pilots. Unable to pull more instructors out of mission area cockpits, we have established an associate undergraduate pilot training program to employ Air Force Reserve pilots as instructors. We initiated this program at Columbus AFB, Mississippi, and Vance AFB, Oklahoma, in January 1997. In the 12 months since the first instructor pilot started training, we have hired a total of 43 of the 50 pilots scheduled to participate in the program. Over 30 of these individuals are now fully mission qualified and have flown well over 250 student sorties in support of the specialized undergraduate pilot training mission. Each Reserve instructor pilot will contribute one-third of the number of sorties produced by an active duty instructor pilot. Once the remaining Reserve instructor pilots complete their training, we estimate that they will contribute over 1,600 student sorties per year.

We are rapidly expanding this program to all student pilot training bases and to other training aircraft to include the T-37, T-1, and AT-38 missions. When completed in the summer of 2000, this program will employ over 539 Air Force Reserve pilots (114 full-time and 425 part-time) and produce a sortie rate equivalent to 225 active duty instructor pilots.

We are also pursuing the development of revolutionary new ways to train our operational aircrews. Distributed mission training will use state-of-the-art distributed simulation technology and advanced flight simulators to permit aircrews to remain at their home units while "flying" and training in synthetic battlespace, hooked electronically to other aircrews located at distant airbases. This will improve the quality and availability of training while reducing aircraft operation and maintenance costs, as well as limiting the amount of time our personnel will have to spend away from home.

Professional Military Education

Educating our airmen to be effective leaders, supervisors, and managers is vital to our continued success. Enlisted Professional Military Education (PME) broadens enlisted members' perspectives and increases their knowledge of military studies, communication skills, leadership, and supervision to prepare them to assume more responsibility. In 1997, we conducted a review of all three levels of our enlisted PME curriculum. We implemented a revised curriculum for the Airman Leadership School in 1997 to eliminate those items better taught at field level and place more emphasis on the profession of arms. We are validating revised curriculums for the Non Commissioned Officer Academy and the Senior Non Commissioned Officer Academy that include subject areas like stress management, suicide prevention, project management, and diversity awareness.

For newly commissioned officers and selected civilians we are developing an Air and Space Basic Course to provide a common frame of reference for understanding and employing aerospace forces. This course will focus on the history, doctrine, strategy, and operational aspects of aerospace power. We will conduct the first class in July 1998.

Follow-on professional military education for our officer corps consists of Squadron Officer School, Intermediate Service School, and Senior Service School. These schools teach the skills necessary for good officership, command, and staff. They also educate senior officers in the strategic employment of aerospace forces to support national security objectives. Our officer professional military education is currently undergoing a complete curriculum review to ensure each level is appropriately tailored to its audience. Additionally, we are pursuing legislation to authorize granting Masters degrees to graduates of Air Command and Staff College and Air War College.

Retaining Quality People

Training and educating our people is of little value if we cannot retain them to benefit from their skill and experience. Unfortunately, there are troubling trends in this area. Our first- and second-term reenlistment rates have declined in each of the past two years. Two initiatives we are implementing to reverse these trends include expanding the Selective Reenlistment Bonus (SRB) program to include additional Air Force specialties and increasing SRB bonus rates in specialties where manning and retention rates are low. Additionally, to ensure our first- and second-term airmen have the information they need to make an educated reenlistment decision, supervisors are now required to address the benefits of an Air Force career during semiannual feedback sessions.

For the officer corps, we are concerned that pilot and navigator retention rates have declined each of the past three years. Since fiscal year 1995, pilot retention has fallen from 87 percent to 71 percent and navigator retention has slipped from 86 percent to 73 percent. Leading indicators are also showing increasingly downward trends. For example, the number of pilots accepting aviator continuation pay is down from 59 percent in fiscal year 1996 to 33 percent as of mid-January 1998. This is a 48 percent drop from the record high fiscal year 1994 level of 81 percent. Similarly, pilot separations increased 27 percent between fiscal year 1996 and fiscal year 1997 and continue to rise.

One of the major factors that weighs heavily on an individual's decision to stay in or leave the Service is the issue of compensation. The Air Force appreciates Congressional support in 1997 for legislation to restore the original value of the aircrew compensation package. We are closely monitoring aviator retention and are cautiously optimistic about the impact of the new incentive at this point. Compensation is but one of several quality of life initiatives that we are pursuing to make military service more attractive to our personnel. These initiatives should create positive incentives for all Air Force members and positively impact retention in a variety of career fields.

Enhancing Quality of Life

Quality of Life (QoL) investments have the greatest rate of return in terms of recruiting and retaining quality airmen for our highly technical aerospace missions. Based on feedback from the field, our corporate strategy is to pursue initiatives supporting seven quality of life priorities that satisfy a broad range of needs and expectations: (1) fair and equitable compensation; (2) balanced TEMPO; (3) quality health care; (4) safe, affordable, and adequate housing; (5) a stabilized retirement system; (6) community programs; and (7) expanded educational opportunities.

Fair and Equitable Compensation.—Adequate compensation has the most impact on our people's standard of living and remains a key element of our total force QoL agenda. Continued Congressional support for competitive annual pay increases, cost of living allowance increases, and improvements to permanent-change-of-station cost reimbursements are critical to maintaining the value of this important QoL component.

We continue to support the commissary benefit as an important non-pay entitlement upon which our active duty personnel, reserve personnel, and retirees depend. Our people count on savings from commissary purchases to extend already stretched incomes—offsetting lagging pay raises, inflation, and out-of-pocket housing and moving costs. To young enlisted families, elimination of the commissary subsidy would have the same impact as a 9 percent pay cut.

To reduce the out-of-pocket expenses members incur during changes of station, we have approved \$101 million in nonappropriated funding to construct 420 new Temporary Lodging Facility (TLF) units and repair another 305. Surveys show 88 percent of members needed an average of 14 days in temporary quarters upon arrival at their new duty location. The average off-base lodging cost at the locations where we are building new TLF's is \$70 per day compared to \$24 on base. Building these units will save money for both the members and the Air Force.

Balanced TEMPO.—Air Force TEMPO was very high in 1997—supporting numerous major contingency operations and over 180 coalition, allied, and joint exercises around the world. Since 1989, deployment requirements have quadrupled, while permanent forward basing has decreased by 66 percent. Endstrength has decreased by 39 percent since 1986, the beginning of the drawdown.

TEMPO is inextricably linked to both readiness and QoL. Our objective is to maintain a reasonable TEMPO that balances the needs of our contemporary military mission with our people's QoL. We have established 120 days per year as the "desired maximum" number of days individuals should be away from their home station for any reason. Air Force management initiatives that were implemented between fiscal year 1994 and fiscal year 1996 (Global Military Force Policy, Global Sourcing, and increased Air Reserve Component participation), resulted in a reduction in the number of weapons systems/skill areas that exceeded our 120-day rate from 13 to 4.

However, despite continued aggressive management of resources, the number of systems/skills above the 120-day mark increased to ten in fiscal year 1997. We are addressing this increase by taking steps to mitigate each of the factors contributing to high TEMPO—operational deployments, inspections, and exercises.

We have reduced typical aircrew deployments from 90 to 45 days and instituted post-deployment standdowns to give people a break after deployments of 45 or more days, allowing time to reacquaint with family and return to normalcy. Additionally, in 1998, the length of unit inspections will be reduced by 10 percent with an addi-

tional 20 percent reduction in fiscal year 1999. There is also an effort underway to use real-world deployments to inspect operational readiness as an alternative to using simulated scenarios for the purpose of inspection. This initiative was used to inspect the 366 AEW from Mountain Home AFB, Idaho, in 1997 during its deployment to Bahrain in support of Operation Southern Watch. In the short- to mid-term, there are also efforts on the Joint Staff and the Air Staff to reduce exercises. The joint goal is to reduce exercise man-days by 15 percent before fiscal year 2001, and we anticipate a 10 percent reduction in Air Force exercises by fiscal year 2002.

On 1 October 1997, we implemented a new system to track TEMPO. The objective is to provide senior leaders with the information they need to identify highly-tasked weapon systems and career fields and, if necessary, take action to reduce their stress. We distributed this new management system to all major commands and military personnel flights with an easy-to-use database that identifies the number of days a person has been on temporary duty in a 12-month period. This database tool allows Air Force commanders, using laptop or desktop computers, to view TEMPO information from the Air Force, major command, base, and unit level by Air Force specialty code, weapon system, or social security number. This system gives commanders a tool they need to help manage the TEMPO of their units.

Our efforts to balance the impact of TEMPO are designed to offset the effects of increased TEMPO levels. We are closely monitoring the situation to determine our ability to sustain this level of activity.

Quality Health Care.—We have an obligation to provide high-quality, affordable health care for all of our beneficiaries. The Air Force operates 46 of the Department's 115 hospitals and 33 of its 471 clinics. Each of these facilities is accredited by the Joint Commission on Accreditation of Healthcare Organizations, and meets the same standards as civilian hospitals.

For the past five years, average accreditation scores for military hospitals have exceeded the average civilian scores. Furthermore, 17 percent of Air Force facilities received accreditation with commendation—the highest rating available—compared to 12 percent in the civilian sector.

The TRICARE health plan which combines military and civilian medical capabilities to provide care for active duty and CHAMPUS-eligible individuals is a vital tool to complement Air Force hospitals and clinics. While the TRICARE program has experienced some problems in the early going, it has proven to be a success on the whole. A survey last year of TRICARE Prime enrollees found that 80 percent of TRICARE participants rated their care good to excellent and 9 out of 10 would reenroll. Problems that patients have experienced, such as multiple co-payments for a single episode of care and the portability of Prime enrollment, will be resolved in 1998. Although TRICARE will be fully implemented by Spring 1998, the law prohibits Medicare-eligible retirees from participating in TRICARE. A tri-Service task force is looking into alternatives for their care, as space-available care becomes more limited.

One step in meeting the commitment to care for this group is Medicare Subvention legislation that allows Medicare reimbursement for medical care provided in Department of Defense (DOD) facilities to Medicare-eligible beneficiaries. We strongly support this approach. This is clearly the first step in meeting the health care needs of our seniors. Our Service will be participating in the Congressionally-mandated Medicare Demonstration project for military retirees over age 65. We are also evaluating other medical alternatives for these older retirees, such as the Federal Employees Health Benefits Program and expansion of the National Mail Order Pharmacy Program.

Safe, Affordable, and Adequate Housing.—Access to safe, affordable, and adequate housing should be available for every member of our military forces. Last year we completed a dormitory master plan to clearly identify housing requirements for our unaccompanied enlisted force and instituted a phased plan to accomplish it. The first step in this plan is to eliminate the remaining permanent party, central-latrine dormitories.

The second step, which will begin in fiscal year 2000, is to provide new dormitories to meet our projected 17,000 room deficit. We remain firmly committed to the DOD "1 + 1" dormitory construction standard for all new permanent party dormitories. This provides for two-person occupancy of an apartment-like unit with a shared bathroom and kitchen and separate, private sleeping quarters. The first unit of this type has been built at McChord AFB, Washington, and is a big hit with our airmen.

The third step calls for the future replacement or conversion of our existing adequate dorms as they wear out. We will not convert or replace these adequate "2 + 2" dormitories until their facility condition warrants a capital investment. Until these existing units are replaced or reconfigured, we are phasing in a private-room assign-

ment policy that will authorize private rooms for all our unaccompanied airmen by fiscal year 2002.

The combined strategy of eliminating central-latrine dorms, building new "1+1" dorms to meet our deficit, and implementing a private-room assignment policy goes a long way toward improving the quality of life and retention of our unaccompanied airmen. This commitment to our airmen extends to our men and women stationed overseas, especially in areas such as South Korea where the lack of unaccompanied on-base housing has force protection and readiness implications.

For Air Force families, we must revitalize over 61,000 housing units that have an average age of approximately 35 years. Although the Air Force owns or leases more than 110,000 homes, 41,000 families remain on base housing waiting lists. It appears that privatization may offer an opportunity in this area.

At Lackland AFB, Texas, a privatization project appears feasible to replace 272 housing units and construct an additional 148 units on base. At Robins AFB, Georgia, we are developing a privatization project for 670 units on land currently owned by the Air Force that will be conveyed to a developer to create a new neighborhood immediately off base. Under the privatization approach, housing units are leased by the privatization owner to Air Force members who pay rent and utilities equal to what they receive as basic allowance for their housing.

Privatization provides an opportunity to bring substandard housing units up to standards in significantly less time than it would take under the current system. We will implement this innovative approach where it is economically and financially feasible to do so.

Stabilized Retirement System.—Because of the critical link between retirement, retention, and readiness, we continue to support preservation of the current retirement system. The 1980's reforms to military retirement devalued it as a retention tool. Members affected by these reforms are telling us two things about retirement. First, having lost 25 percent of its lifetime value during these reforms, military retirement is no longer our number one retention tool. Second, our members are uncertain that the retirement plan they signed up under will be there when they do reach retirement eligibility. We continue to closely monitor our officer and enlisted retention rates to ascertain what impact military retirement (and other personnel programs) play in our members' decision to stay in or leave the Service. We believe it is imperative to preserve the current retirement system. The mere suggestion of a change to the military retirement system causes serious concern throughout the force. We need Congressional support to stabilize and preserve the military retirement system. Our readiness depends on it.

Community Programs.—Air Force community programs are designed to help active duty members with their dual responsibilities as military members and parents. They provide child care, before- and after-school programs for children 6–12 years of age, youth centers for teens, and family support centers to help individuals cope with family separations.

At the end of fiscal year 1997, our Service was able to provide 57 percent of the 86,000 needed child care spaces. Facility projects and funding are in place to increase this to 65 percent by 2002. Enhancing and expanding the before- and after-school programs for children 6–12 years of age is a major part of our efforts in this area. These programs offer direct supervision for children who may currently stay at home alone before and after school and during holidays.

Teen issues continue to be on the front burner in all Air Force communities. An Air Force-wide Teen Forum was held to identify issues and begin planning initiatives to improve services. To improve program quality, youth programs are being affiliated with the Boys & Girls Clubs of America, and new or expanded youth centers are under construction at many installations.

Expanded Education Opportunities.—A fully-funded tuition assistance program and exploitation of distance learning technologies are two key components of our quality of life-related educational programs. Both of these programs provide exceptional educational opportunity which is consistently cited by our new recruits as the number one reason they enlist in the Air Force. Our Community College of the Air Force also continues to provide our enlisted force the means to earn job-related Associate degrees. This incentive not only motivates our airmen to achieve educational goals, but also serves to provide technically-proficient personnel for the Air Force's mission requirements. The opportunity provided by the 1996 Veterans Benefits Improvement Act to allow Veterans Educational Assistance Program contributors to convert to the much more advantageous Montgomery GI Bill was well received—61 percent of those eligible in the Air Force made the conversion.

Promoting Equal Opportunity

The Air Force gains its strength through diversity. Racial minority representation in our Service has risen from 14 percent in 1975 to 23 percent today. Women now comprise 17 percent of the force—16 percent of the officer corps and 18 percent of the enlisted force. Our people feel that they are being treated fairly and know programs exist to bring complaints of discrimination and harassment to the attention of their supervisors.

We have two such programs that military and civilian personnel may use—the military equal opportunity program and the civilian equal employment opportunity program. We are conducting a top-to-bottom review of both programs to see if they can be managed more efficiently and effectively and to determine if staffing, training, and funding are adequate to carry out their respective responsibilities. The review is expected to be complete in early 1998.

The Air Force equal opportunity program will continue to stress command commitment and accountability, clarity of policy, effective training, and fair complaint handling. Our goal is to promote individual opportunity and professional growth in an environment free from discrimination and harassment.

PREPARING FOR THE 21ST CENTURY—STRENGTHENING CORE COMPETENCIES

Our people deserve to be equipped with the right tools to accomplish our missions. The Air Force modernization program is designed to enhance the unique capabilities embodied in our specialized core competencies—Air and Space Superiority, Precision Engagement, Global Attack, Rapid Global Mobility, Information Superiority, and Agile Combat Support. These competencies provide the rapid, precise, and global response that gives our combatant commanders and the National Command Authorities the necessary options to respond to regional crises.

Air and Space Superiority

Air and space superiority is a fundamental requirement for all operational concepts in Joint Vision 2010 and is a prerequisite to achieving full spectrum dominance. It is essential that U.S. and allied forces, both in-place and those deploying to theater, be protected from enemy air attacks early in the conflict. As potential adversaries acquire more capable fighter aircraft and, importantly, longer-range air-to-air missiles, it will become more difficult for a small expeditionary force to defend friendly airspace effectively and to secure air superiority quickly.

The National Defense Panel pointed out that legacy systems procured today will be at risk in the 2010–2020 time frame. That is precisely why our Service is investing in the leap-ahead capability embodied in the F-22 Raptor. Three distinguishing factors: supercruise; stealth; and integrated avionics make the F-22 truly revolutionary. The F-22's ability to engage enemy aircraft before being detected by them will allow our forces to shoot down large numbers of enemy aircraft while minimizing the number of our fighters lost in air-to-air engagements. This high exchange ratio, coupled with the F-22's ability to operate effectively in the vicinity of surface-to-air missiles, will enable our forces to achieve a dominant air defense posture and air superiority within the early days of a major theater war. The F-22 will enable the United States to dominate the air arena and deny our adversaries sanctuary—giving every member of the joint team the ability to operate free from attack and free to attack. Additionally, in the future, the integrated air-to-ground capability of the F-22 could make it our high-end attack aircraft.

The Raptor successfully completed its first flight in September 1997, begins flight testing at Edwards AFB, California, in early 1998, and will enter operational service in 2005. Funding stability for this critical modernization effort is essential for program stability.

In addition to the threat posed by advanced enemy aircraft, the National Defense Panel also recognized the importance of defending key regional coalition partners against enemy missile attack. We are developing the Airborne Laser (ABL) to counter this threat. This truly revolutionary weapon will change the military's concept of defense and open the door to a new era of warfare. Its "speed-of-light" capability to shoot down Theater Ballistic Missiles (TBM's) in their vulnerable, boost-phase portion of flight can deter the use of these weapons by our adversaries by forcing them to face the possibility of their weapons falling back on their territory. This year, the ABL showcased its shooter, sensor, battle management, and communications capabilities as part of a joint multi-layered theater missile defense architecture in the Roving Sands 97 wargame. In this simulated scenario, the ABL shot down 16 of 17 targets it engaged and provided missile launch warning, launch and impact point predictions, and trajectory data to the joint force.

The ABL program is on track, meeting all its milestones, and will demonstrate its lethality with an actual TBM shootdown demonstration in 2002. The ABL will reach initial operational capability with three aircraft in fiscal year 2006 and full operational capability with seven aircraft in fiscal year 2008.

Space-based assets will enhance the success of the ABL. For example, the Space-Based Infrared System (SBIRS) will provide cueing for the ABL as well as all other missile defense systems. SBIRS will consist of constellations of satellites in high and low orbits and will provide improved detection and warning of strategic and theater missile launches. The SBIRS High component satellites are necessary to replace the current Defense Support Program (DSP) constellation that provides warning of missile attack. The last DSP satellite will be launched in 2003 and a follow-on system is needed to maintain global coverage.

SBIRS High will provide complete coverage of the northern hemisphere and most of the southern hemisphere, providing warning of hostile missile launches, missile tracks through burnout, launch point and initial impact point prediction, and target handover to ground-based radars and the SBIRS Low component. SBIRS High sensors will also gather technical intelligence and perform battlespace characterization and pass this information on to the warfighter in real time.

The SBIRS Low component will acquire and track missiles during the midcourse of their flight. It will track small, cold bodies, such as reentry vehicles, against the deep space background, discriminate warheads from decoys, and pass this information to missile defense systems. The precision tracking of the threat reentry vehicles by SBIRS Low will significantly increase the probability of a successful intercept. SBIRS will complement the F-22 and ABL to enable our forces to dominate air and space as part of achieving full spectrum dominance.

Space-based support is rapidly becoming a prerequisite for successful military operations on the land, sea, and in the air. Integrating space-based systems into all aspects of its operations is a top Air Force priority. This objective has implications for each of the Air Force core competencies and is the foundation for our Service's continued evolution as an aerospace force. But space-based capabilities can only be made available with reliable, cost-effective spacelift. Toward that end, we are developing the Evolved Expendable Launch Vehicle (EELV).

The EELV will replace the current fleet of launch vehicles with a family of vehicles to provide assured access to space. The EELV will enter operational service with government flights of medium and heavy lift variants scheduled as early as 2002 and 2003 respectively. EELV will significantly improve DOD, civil, and commercial launch operations by reducing costs, shortening timelines, and enabling more launches per year. We have recently settled on a strategy to carry two contractors forward into the engineering and manufacturing development and production phases. This decision was based on a potential private sector market significantly larger than originally envisioned for EELV. The benefits from this new strategy include a more robust industrial base and two sources to provide continued competition into production and is an example of our revolution in business practices.

Precision Engagement

Today, and for the foreseeable future, successful military operations will depend on the ability to reliably achieve desired effects while limiting casualties and minimizing collateral damage. We are using the power of space-based systems to support a new generation of very accurate munitions that exploit the power of satellite navigation to find their way to within feet of any target. We are also investing in greater numbers of advanced precision weapons capable of killing multiple targets on a single pass, and improving our day, night, and adverse weather precision employment capabilities to enable pinpoint target accuracy.

We are working hard to field advanced munitions that will further enhance the range of our precision engagement capabilities like the inexpensive Joint Direct Attack Munition (JDAM) Global Positioning System guidance kit that converts 1,000 and 2,000 pound general purpose and penetrator warheads into highly accurate, adverse weather weapons with in-flight retargeting capability. Initial JDAM drop test results were impressive, with impacts well within the 13 meter requirement. JDAM low rate initial production began in fiscal year 1997 and deliveries will start in fiscal year 1998.

The long range, low observable, conventional, precision guided Joint Air-to-Surface Standoff Missile (JASSM) will enable precision engagement of high value, heavily defended, fixed and relocatable targets. This is another truly revolutionary weapon system at a very affordable price. The decision to proceed to engineering and manufacturing development is scheduled for fiscal year 1999. The low rate initial production decision is scheduled for fiscal year 2000.

The Joint Standoff Weapon (JSOW) will permit highly accurate, adverse weather employment against land and sea targets at standoff ranges of 15–40 miles. We will use two variants with submunitions designed to neutralize both soft and heavily armored targets. We will begin buying JSOW soft target variants in fiscal year 1998 and hard target variants by fiscal year 1999.

The Sensor Fuzed Weapon (SFW) dispenses cluster munitions which will provide multiple kills per aircraft pass against land combat and support vehicles. Full rate production of baseline SFW began in fiscal year 1996 and initial operational capability was declared in early fiscal year 1997. The Air Force initiated Pre-Planned Product Improvement (P³I) development in fiscal year 1996. SFW P³I expands the weapon's footprint by 50 percent, incorporates a dual mode Laser/Infrared sensor and a multi-purpose combination warhead, and increases kills per pass to 233 percent of the requirement for the current baseline SFW. Production will begin in fiscal year 1999. About 3,000 of the 5,000 planned weapons will include P³I improvements.

The Wind Corrected Munition Dispenser (WCMD) guidance tail kit will provide the capability to correct for launch transients and wind effects and give the Air Force a first time capability to deliver area munitions such as Combined Effects Munitions, GATOR, and SFW accurately from medium to high altitude. Full rate production is planned for fiscal year 2000.

To counter proliferation of chemical and biological weapons, we plan to enhance the counterforce capability of our Conventional Air Launched Cruise Missiles against fixed chemical/biological production and storage facilities. Funds for this effort were made available by OSD as a result of a joint OSD-Interservice review of current capabilities to attack such targets. Elsewhere, we are working on the Agent Defeat Weapon, a capability to neutralize (with low collateral damage) chemical and biological weapons before they are employed. This capability is currently in concept exploration and definition.

The Joint Strike Fighter (JSF) is a precision engagement asset that will replace the aging fleets of Air Force F-16 and A-10 aircraft. The JSF will provide a less expensive multi-role partner for the F-22. The F-22 and JSF are intended to be complementary, not interchangeable. Together they represent a synergistic high-low capability mix. The F-22's ability to gain air dominance by penetrating and suppressing the most lethal ground-based and airborne systems of the next century makes it possible for us to design a multi-role aircraft which is less capable and therefore less costly. This is the same high-low mix principle we utilized with the F-15/F-16 partnership. Without the F-22, the JSF would be hard pressed to perform its mission against current and impending threats with the same effectiveness. The JSF's affordable balance of survivability, lethality, and supportability will bring precision engagement to the future battlespace while simultaneously decreasing life cycle costs.

The JSF program is on track to supply over 2,900 next-generation multi-role strike fighters to the Air Force, Navy, Marines, and the United Kingdom Royal Navy. There are several other interested Allies that may expand and extend the JSF overall quantity. Delivery of the first operational JSF is scheduled for fiscal year 2008.

Successful precision engagement is as dependent on timely and accurate information as it is on precision weaponry and capable delivery platforms. Rapidly getting this information to our aircrews for mission planning and target study is critical for mission success. Toward that end the Air Force is evaluating systems like the National Eagle system.

Housed in a twenty-foot deployable shelter, National Eagle receives and processes near-real time imagery from satellites and the Predator UAV and fully integrates it with the Air Force Mission Support System and the PowerScene mission visualization system. National Eagle provides the route planning and "fly-through" mission visualization capability that enables our pilots to practice their missions in virtual reality at a computer console before strapping into their aircraft for an actual mission. National Eagle is a refinement of the technique that was effectively used in Bosnia during Operation Deliberate Force to increase mission success and avoid unnecessary collateral damage. We will continue to search for similar innovative initiatives to integrate air and space assets to further enhance the effectiveness of aerospace power.

Global Attack

To quickly halt enemy forces in the early phase of a conflict, the U.S. must maintain its unique ability to project power rapidly, precisely, and globally—to quickly find and attack or influence targets worldwide from air and space. Air Force global attack assets are designed to fill this need, responding anywhere in the world in a matter of hours.

Global Power missions illustrate this capability and are quarterly requirements for each Air Combat Command bomb wing. The purpose of these missions is to demonstrate to any potential adversary the capability of U.S. aerospace forces to project power from bases in the continental United States to anywhere in the world within 24 hours. In fiscal year 1997, 32 global power missions were flown by B-1's, B-2's, and B-52's throughout the world. Missions with durations over 30 hours, taking off and landing at home station, are not uncommon. This greatly increases the options available to the CINC's during crises, while lowering aircrew TEMPO by allowing them to operate from their home stations.

Bomber operations from forward locations provide commanders with the added mass, flexibility, and higher utilization rates critical to the halt phase. 1997 witnessed the first in-theater deployment of bombers with an Aerospace Expeditionary Force when B-1's deployed to Southwest Asia to support extensions to Operation Southern Watch.

The B-1 Lancer is the Air Force's primary long range conventional delivery system. In October 1997, the Air Force suspended the B-1's active nuclear support role. It remains on schedule for conversion to a conventional role under the multi-phased Conventional Mission Upgrade Program (CMUP).

The B-1 carries three families of cluster bomb weapons, including the anti-armor SFW, making it the first bomber with this critical halt phase capability. In April 1997, the Defensive Systems Upgrade Program, a component of the CMUP, entered into the engineering and manufacturing development acquisition phase. It includes the ALR-56M radar warning receiver for improved situational awareness and a fiber optic towed decoy for radio frequency jamming. Additionally, in July 1997, the B-1 received approval for full rate production of the GPS and communications upgrade portions of the CMUP.

By the second quarter of fiscal year 1999, we will equip eight B-1's with the JDAM and the interim ALE-50 Towed Decoy System for survivability against radar threats. By fiscal year 2002, the B-1 will achieve its initial operational capability with the WCMD, JSOW, JASSM, and the full defensive system upgrade to include the Joint Air Force-Navy Integrated Defensive Electronic Countermeasures System.

The B-2 Spirit is our multi-role, heavy bomber capable of delivering both conventional and nuclear munitions. Achieving initial operational capability in April 1997, the B-2 brings massive firepower to bear, in a short time, anywhere on the globe. Its low-observable, or "stealth," characteristics give it the unique ability to penetrate an enemy's most sophisticated defenses and threaten its most valued and heavily defended targets. The B-2 has the capability to deliver a wide variety of precision and non-precision weapons including the JDAM, GPS Aided Munition, SFW, Cluster Bomb Units, mines, and general purpose munitions ranging from 500 to 2,000 pounds.

The GBU-37, a GPS guided, 4,700 pound, deep penetrating munition was added to the B-2 arsenal in late 1997. This weapon is currently the only all-weather, near-precision "bunker busting" capability available to warfighting CINC's. B-2 conventional weapons integration will continue to be enhanced with the addition of JSOW in fiscal year 1999 and JASSM in fiscal year 2002.

For more than 35 years, the B-52 Stratofortress has been the primary strategic heavy bomber force for the United States. The B-52 has the combat proven capability of dropping or launching a significant array of weapons in the U.S. inventory. It is the only Air Force aircraft capable of delivering all of the following precision, standoff weapons: the AGM-129 Advanced Cruise Missile, the AGM-86B Air Launched Cruised Missile, the AGM-84 Harpoon anti-shipping missile, the AGM-86C Conventional Air Launched Cruise Missile, and the AGM-142 missile. Additionally, the B-52 has the capability to integrate future standoff and precision conventional munitions.

Rounding out the Air Force global attack assets are the Minuteman and Peacekeeper ICBM fleets. Both the Minuteman and Peacekeeper systems provide rapid, precision strike capability. The Minuteman fleet is undergoing modernization programs, including propulsion and guidance replacements, to continue to ensure the fleet remains a reliable and credible deterrent to nuclear attack. The Peacekeeper fleet will continue to be a nuclear deterrent until deactivated under the provisions of START II.

Rapid Global Mobility

Rapid global mobility ensures our nation can rapidly respond to the full spectrum of contingencies—from combat operations, to humanitarian relief, to peacekeeping, with the right force, at the right time, and the right place. Air mobility missions include the airlift and/or airdrop of troops, passengers, supplies, and equipment to locations around the globe, as well as air refueling for Air Force, sister Service, and

allied aircraft. Air mobility forces also provide worldwide aeromedical evacuation of patients, participate in special operations, and support other national security requirements. Rapid global mobility is the joint team's most reliable combat multiplier.

Airlift and air refueling forces provide tremendous speed and flexibility in deploying, employing, and sustaining America's military forces. Air mobility forces operate as part of a larger joint warfighting team, working closely with air, land, and naval forces to meet operational requirements for the unified commanders.

The C-17 is rapidly becoming the new core airlifter of the Air Force's mobility fleet. Its ability to carry outsize cargo into austere airfields is essential in deploying our forces virtually anywhere on the globe—a capability no other nation in the world has. This capability was recently showcased during CENTRAZBAT 97, a combined force exercise consisting of forces from the U.S., Kazakhstan, Uzbekistan, Kyrgyzstan, Russia, and Turkey. In this exercise eight C-17's flew 7,800 miles non-stop from Fort Bragg, North Carolina, to air drop troops and equipment in Central Asia—the longest air drop mission in history.

In 1997, the C-17 supported our forces in Bosnia, Haiti, and the Middle East, while accomplishing numerous global movements on short-notice. From transporting Army rocket launchers from Oklahoma to Korea, to supporting the evacuation of non-combatants from Liberia, to humanitarian relief flights to Central Africa, the C-17 continues to carry the load for the joint force and will provide unparalleled reach well into the new millennium.

Another important aspect of our mobility capability was demonstrated in 1997 by members of the 352nd Special Operations Group and 100th Air Refueling Wing. These forces deployed to Libreville, Gabon, in West Africa, as part of an enabling force to support the Joint Task Force Operation Guardian Retrieval. This operation was initiated to evacuate the estimated 550 American citizens in Zaire to protect them from the violence associated with the civil war there. The airmen joined about 400 soldiers, sailors, and Marines comprising the joint task force ashore in West Africa.

The deployment came just weeks shy of the first anniversary of Operation Assured Response when Air Force Special Operations Forces (SOF) units deployed to Africa to help evacuate more than 2,400 people from Liberia. Our SOF forces maintain the highest tasking rate in the Air Force and it is critical that they are properly equipped to deal with the increasing number of military operations other than war. These operations require long range vertical lift capability presently supplied by MH-53J and MH-60G aircraft.

Our plan to acquire CV-22's for our SOF forces will provide long range, adverse weather, clandestine penetration of medium to high threat environments in politically or militarily denied areas to execute personnel recovery operations, infiltrate, exfiltrate, and resupply SOF forces. The CV-22's speed, extended range, and survivability will significantly increase the warfighting CINC's ability to conduct operations in denied territory. Air Force Special Operations Command will receive 50 of the tilt-rotor aircraft. The CV-22 is expected to make its maiden flight in 2000. Hurlburt Field, Florida, will receive operational aircraft beginning in 2004.

We are also modernizing our executive fleet by replacing the VC-137 fleet at the 89th Airlift Wing at Andrews AFB, Maryland. The VC-137's will be replaced with four C-32A (Boeing 757) and two C-37A (Gulfstream V) aircraft. All aircraft will be delivered in 1998.

Global Access, Navigation, and Safety (GANS) is an Air Force management initiative established to harmonize requirements and acquisition of several navigation and safety-related programs. The purpose of GANS is threefold: to organize related navigation and safety programs and integrate Air Force efforts through combined Air Staff and Major Command integrated product teams; to serve as a requirements and acquisition management tool; and to establish an avionics acquisition modernization strategy designed to minimize platform downtime and integration costs. The GANS process provides implementation planning for one of the largest of these programs, Global Air Traffic Management (GATM). We will sustain our rapid global mobility core competency by acquiring state-of-the-art GANS systems for our air mobility forces to preserve access to prime global airspace routes in the future.

Additionally, latest technology, commercial ground and air traffic warning systems using digital terrain database displays and GPS have been established as standard equipment for all Air Force passenger capable aircraft. This equipment is to be installed as soon as possible, but not later than 2005, to enhance our ability to safely operate in higher traffic densities of the 21st century.

Modernization of the Active and Reserve Component C-130 airlift fleet is on track. This program consists of modification of our existing C-130's and limited procurement of the C-130J. Programmed modifications are designed to increase reli-

ability, maintainability, combat capability, and safety. Our current plan is to modernize over 350 existing aircraft between fiscal year 2000 and fiscal year 2009.

Our Pacer CRAG (Compass, Radar And GPS) avionics upgrade to the KC-135 fleet is also on track. This commercial off-the-shelf modification program will eliminate the need for a navigator on most missions. Recent additions to the Pacer CRAG program include a Traffic Alerting and Collision Avoidance System (TCAS), an Enhanced Ground Proximity Warning System (E-GPWS), a Standby Air Data Indicator, and a Reduced Vertical Separation Minima (RVSM) Compliant Air Data Computer. These systems will serve as the foundation for future GATM modifications and ensure our KC-135 fleet maintains the capabilities necessary to meet wartime requirements.

Information Superiority

In today's environment, information superiority is critical to the execution of Air Force core competencies and overall mission success. The essence of information superiority is the ability to collect, control, exploit, and defend information and information systems. These "information operations" are important to the entire range of military operations, from peace to all-out conflict. The Air Force provides information superiority to the nation by executing information operations in air, space, and increasingly, in cyberspace. One of the fundamental benefits of information superiority is effective command and control of our military forces.

We are committed to integrating command and control (C²) into aerospace operations, eliminating duplication of effort, and increasing commonality between C² systems. To implement and oversee these initiatives, we stood up the Air and Space Command and Control Agency in 1997. This agency, together with the Air Force Communications and Information Center (the Air Force's center of excellence for communications and information, also established in 1997), will be pivotal in expanding our nation's information edge and enhancing our warfighters' capabilities.

We are aggressively pursuing innovative C² capabilities to improve Air Force expeditionary operations. For example, in September 1998, we will conduct Expeditionary Forces Experiment 98 (EFX 98) to demonstrate C² capability and help focus our C² operations and investment. EFX 98 will consist of a simulated combat scenario with emphasis on the rapid deployment and employment of an AEF to conduct offensive air operations. It will combine elements of live-fly exercises, modeling and simulation, and advanced technology to demonstrate new operational concepts such as near-real time sensor-to-decision maker-to-shooter capabilities, Joint Force Air Component Commander enroute employment planning, Distributed Air Operations Center concepts, and Agile Combat Support using In-Transit Visibility and Total Asset Visibility. EFX 98 will establish the baseline for a series of advanced warfighting experiments we plan to conduct annually.

One system that is key to meeting the warfighters' command, control, communication, computer, and information (C⁴I) needs is the Global Command and Control System (GCCS). GCCS is a part of the overall Defense Information Infrastructure Common Operating Environment (DII COE) which affords all the Services interoperability and eases joint operations; it is a DOD integrated C⁴I system that provides a joint, worldwide classified network to facilitate the dissemination of critical information. We have fielded GCCS at all Major Commands, Numbered Air Forces, and most Wings. GCCS provides a full complement of C² capabilities such as readiness assessment, crisis action and deliberate planning, intelligence mission support, secure communications, and a common operational picture. We are migrating Air Force C² systems to this common operating environment to enhance interoperability.

Effective C² depends in large part on our ability to accurately identify all of the hostile, friendly, and neutral entities in the battlespace—referred to as Combat Identification (CID). Accurate CID hinges on our ability to effectively process data to build a three-dimensional picture of the battlespace. This in turn permits real-time application of tactical options so weapons can be employed at optimal ranges against the most critical enemy targets. The acquisition of CID systems and development of associated tactics, techniques, and procedures will maximize operational effectiveness, reduce casualties due to fratricide or enemy actions, and move us closer to the goal of full spectrum dominance.

The Airborne Warning and Control System (AWACS) is the linchpin of airborne C² systems as the airborne surveillance and battle management platform for the Joint Force Commander. We have modernization efforts underway to ensure AWACS remains an effective and survivable airborne C² platform through 2025.

In 1997, the AWACS Radar System Improvement Program successfully completed its initial operational test and evaluation. This program will greatly increase the detection range of low radar cross section targets, provide improved electronic counter-

counter measures, and reduce radar failure time ten-fold. Additionally, the collection of initiatives comprising the Extend Sentry program will reduce maintenance downtime, reduce the number of mission aborts, and increase aircraft availability. The Extend Sentry program is critical to ensure the AWACS will remain available to meet real-world taskings.

Timely, accurate information provides the National Command Authorities and our military commanders with the ability to quickly assess developing crises and respond appropriately. The operations of U-2, Predator, and the RC-135 Rivet Joint aircraft around and over Bosnia and Iraq graphically illustrate how the integration of air and space assets has improved the timeliness and accuracy of our information. The U-2 has the ability to deliver digital near-real time information to ground stations in the continental United States, which in turn process it and relay it by satellite to theater commanders around the globe.

These ground stations, known as Contingency Airborne Reconnaissance System (CARS) Deployable Ground Station (DGS) 1 and 2, are located at Langley AFB, Virginia, and Beale AFB, California. They serve as collection and assessment points for the U-2's raw intelligence data. Each DGS consists of two squadrons, an Air Combat Command unit that provides imagery analysis expertise, and an Air Intelligence Agency unit that provides signals intelligence, logistics, and communications expertise. These units determine the capabilities and posture of potential adversaries and provide near-real time intelligence products to deployed forces in Bosnia and Southwest Asia using Mobile Stretch (MOBSTR) communications relay technology.

Deploying a DGS into a theater of operations would require six C-5 Galaxy transports to move approximately 200 tons of equipment and more than 200 people. However, with our "reachback" capability, we achieve the same effect by deploying 30 people with smaller ground stations to collect and relay the U-2's data from the theater of operations to the United States for processing and dissemination.

The U-2's impressive capability is complemented by Unmanned Aerial Vehicles (UAV's). The Predator Medium Altitude Endurance (MAE) UAV has been deployed to Bosnia since March 1996. This versatile system transmits live video feeds to front line commanders via the Joint Broadcast System—furnishing our joint forces with unparalleled situational awareness.

On 1 August 1997, the 15th Reconnaissance Squadron at Indian Springs Air Force Auxiliary Field, Nevada, was activated as the second Air Force Predator MAE UAV squadron. One week later, Predator became the first Advanced Concept Technology Demonstrator (ACTD) to transition to a formal acquisition program under DOD's ACTD initiative. We have overcome several challenges and learned some lessons in making Predator the success it is today. We are using this valuable experience as we work with the high altitude UAV program offices to ensure a smoother operational transition once these programs prove themselves.

In the area of manned reconnaissance, Rivet Joint continues to be our most flexible and responsive platform. During 1997, Rivet Joint remained in high demand, providing accurate, timely tactical information to a broad range of users in Bosnia, Southwest Asia, and around the world. In 1997, the first three aircraft of the 14 aircraft Rivet Joint Fleet were modified with current technology to establish a new baseline configuration. Two additional Rivet Joint aircraft will be added to the fleet beginning in 1998, helping to alleviate this system's high TEMPO rate. Additionally, we plan to complete most of the reengining program for the RC-135 fleet by the end of the Future Years Defense Program.

Our more specialized RC-135 assets, COMBAT SENT and COBRA BALL, provided critical technical intelligence throughout 1997 to support weapons development efforts, theater force protection, and weapons proliferation assessments.

Surveillance is also crucial to information superiority. The Joint Surveillance Target Attack Radar System (Joint STARS) provides commanders with a set of "eyes" to "see" what the enemy is doing on the ground in all weather, day or night. The Joint STARS combination of moving-target indicators and synthetic aperture radar produces images that enable operators to pick out individual vehicles in a moving convoy. This capability played an important role in enforcing the Dayton Peace Accords when both of the Bosnian factions could see and understand that their every movement was being monitored.

Over the course of 1997, Joint STARS participated in several exercises where it provided critical situational awareness to commanders and troops. For example, during the Hunter Warrior exercise, the Red Team commander expressed frustration that he was unable to move his forces without detection by friendly forces when Joint STARS was on station. Similarly, the Joint STARS received excellent reviews for its work in the Foal Eagle exercise conducted in the Republic of Korea—the largest air base defense exercise in the free world. During the Foal Eagle exercise, the

Joint STARS significantly increased the situational awareness of battle commanders in South Korea by providing the real-time location of friendly and enemy forces.

Joint STARS also has tremendous potential to assist with real-time targeting of enemy positions by attack aircraft. As an experiment, a Joint STARS mission was flown over Bosnia in which a Hand-held Terminal Unit (HTU) was used to send real-time target designation and other data by burst transmission to F-16 aircraft equipped with the Improved Data Modem. While the HTU is not currently integrated into Joint STARS, this experiment demonstrated the potential capability to pass real-time information from Joint STARS directly into the cockpits of attack aircraft.

Joint STARS, which declared initial operational capability in December 1997, has now successfully deployed to the European, Southwest Asia, and Pacific theaters in four deployments. It continues to demonstrate its benefits as the DOD's only fielded real-time, long range, wide area surveillance and battle management asset. Together, the Joint STARS and the other Air Force information superiority assets provide the battlespace awareness necessary to conduct today's complex military operations.

We must safeguard our information to prevent our forces from becoming the target of an adversary's information warfare campaign. We have an increasing need to defend information from its point of production to its point of delivery to the battlespace commanders. To aid in the defense of systems and the information they contain, Air Force investigators and counterintelligence personnel rely on the unique capability to detect and counter unauthorized network access afforded by the computer forensic laboratory. Within the laboratory, an impressive media analysis branch is able to dig clues from mountains of information stored in a variety of formats. This capability is complemented by a network intrusion squad capable of tracking intruders through the complex maze of cyberspace.

Our Service was recently designated as executive agent for the new DOD Computer Forensics Laboratory. This laboratory will offer us an opportunity to play an important leadership role in developing techniques to protect key information systems across the DOD. Our other current information operations capabilities include the Automated Security Incident Measurement System, Modeling and Simulation programs, the Information Warfare Battlelab, and the Computer Security Assessment Program.

In the area of offensive information warfare we have a variety of capabilities like those provided by the EC-130H, Compass Call. As DOD's only wide-area offensive information warfare platform, Compass Call provides disruptive communications jamming and other unique capabilities to support the Joint Force Commander across the spectrum of conflict.

For localized targeting of specific avenues of communication, the EC-130E Commando Solo is available to commanders. This weapon system is the mainstay information operations aircraft for peacekeeping and peacemaking operations and humanitarian efforts which comprise a large percentage of today's military missions. With the capability to control the electronic spectrum of radio, television, and military communication bands in a focused area, the Commando Solo aircraft can prepare the battlefield through psychological operations and civil affairs broadcasts. In 1997, the Commando Solo supported the U.N.'s Operation Joint Guard mission by shutting down anti-SFOR propaganda through radio and TV broadcasts over Bosnia-Herzegovina in support of SFOR operations.

Agile Combat Support

The success of the joint force ultimately rests on our ability to sustain deployed forces. Agile combat support will enable our rapid, responsive, and flexible forces to become more expeditionary in nature by eliminating the need for massive deployed inventories. Improvements in information and logistics technologies will make this possible.

When combatant commanders require an item, integrated information systems will "reach back" to U.S. locations and "pull" only the resources required. Streamlined depot processes will release materiel in a timely fashion so that time-definite transportation can complete the support cycle by rapidly delivering needed resources directly to the user in the field. Integrated information systems currently being tested provide total asset visibility throughout this process, tracking resources throughout their delivery cycle. Mobility assets equipped with this technology can be tracked in near-real time through the exchange of GPS data, two-way message text, and aircraft cargo information.

We are improving interoperability and commonality of combat support information systems with the Global Combat Support System-Air Force (GCSS-AF) program. GCSS-AF is another component of the DII COE; it is a software moderniza-

tion program to provide interoperability and sharing of data between base-level information systems.

Agile combat support will allow commanders to improve the responsiveness, readiness, deployability, and sustainability of their forces. The efficiency and flexibility of agile combat support will enable aerospace forces to engage quickly and decisively and sustain operations as necessary anywhere on the globe.

Enabling Technologies

Our Service continues to explore and invest in promising technologies that enhance our core competencies and contribute to our vision for the future. Examples include: our development, demonstration, and maturation of the high-power laser technology that was transitioned to the Airborne Laser system; our execution of the Ballistic Missile Defense Organization's Space-Based Laser Research Demonstrator; and our cooperation with NASA to explore the potential of reusable launch vehicle technology for militarily unique applications. Additionally, we continue to investigate a range of new technologies from those intended to enhance the expeditionary capability of our aerospace forces to those designed to enable target identification from space. We feel it is important to explore revolutionary technologies like these as a hedge against the potential threats our nation may face in the future.

Our defense laboratories and test centers are often the birthplace of key technologies. To increase the effectiveness and efficiency of these facilities, we streamlined the Air Force Materiel Command laboratory structure in April 1997 by forming a corporate Air Force Research Laboratory (AFRL). This new organization realigns the former Armstrong Laboratory at Brooks AFB, Texas; Phillips Laboratory at Kirtland AFB, New Mexico; Rome Laboratory at Rome, New York; Wright Laboratory at Wright-Patterson AFB, Ohio; and the Air Force Office of Scientific Research at Bolling AFB, Washington, DC, under a single AFRL commander headquartered at Wright-Patterson AFB. The AFRL will likely play a major role in harnessing emerging revolutionary technologies that will transform the way we employ military forces in the future.

Revolution in Military Affairs

A revolution in military affairs (RMA) is said to occur when the innovative application of new technologies, combined with dramatic changes in operational and organizational concepts, fundamentally alters the character and conduct of military operations. The Air Force exists today because of an earlier RMA that combined the new technology of manned flight with innovative operational concepts to create a military force with a global perspective.

Our Service has evolved over the years by leveraging leap-ahead technology and developing the appropriate operational and organizational structures to employ that technology. We are committed to the research, testing, and evaluation of promising new technologies that may lead to the next RMA. Stealth, supercruise, the Airborne Laser, precision guided munitions, Joint STARS, UAV's, integrated information systems, and space-based assets are all examples of leading edge technologies that are changing the way we conduct military operations.

We are exploring the implications of leap-ahead capabilities in such areas as information operations, space operations, and directed energy to ensure we are postured to exploit the next RMA to build the aerospace capabilities necessary to protect America's security interests well into the 21st century.

IMPROVING EFFICIENCY

Sustaining and strengthening our core competencies will depend on getting the most out of limited resources. We are downsizing personnel and taking other actions to streamline operations and increase efficiency in all areas to help fund our modernization program. We are looking to innovation and revolutionary business practices to improve our operations and reduce costs.

Innovation

Innovation is critical to our Service's continued success. It is essential that we aggressively look ahead and seek new ways to employ aerospace power that will enable us to respond quickly to new strategic requirements and take advantage of new technological opportunities.

Battlelabs

One of the major engines for operational innovation is the Air Force battlelab concept. Battlelabs are small, focused, and rely on field ingenuity to identify creative operational and logistics concepts for advancing the Air Force's core competencies in joint warfare. The Air Force established six Battlelabs in July 1997 to identify

innovative ideas: Aerospace Expeditionary Force, Command and Control Battle Management, Unmanned Air Vehicle, Space, Force Protection, and Information Warfare. Successfully demonstrated battlelab concepts will be introduced to the CINC's and their components through exercises and wargaming, and via the newly established Service and joint experimental organizations. New concepts adopted by the Air Force may prompt revisions to Air Force organization, doctrine, training, requirements, or acquisition to enhance the Air Force's ability to meet future challenges.

Modeling and Simulation

Modeling and Simulation (M&S) technologies are an array of computer and software tools for creating and interacting with artificial representations of reality. We have always used modeling and simulation, but advances in computer technology have enabled simulations that are highly detailed, increasingly realistic, and more affordable. Our challenge is to develop models and simulations that more accurately capture the contributions of aerospace power on the modern battlefield.

We envision a "joint synthetic battlespace" that uses a mix of live participants, human-in-the-loop virtual simulators, and computer-generated constructive simulations to organize, train, and equip our forces. To realize this vision, we are actively supporting the development of joint, interoperable, and reusable models and simulations. Specific examples include the Joint Warfare Simulation (JWARS), the Joint Simulation System (JSIMS), and the Air Force-directed Joint Modeling and Simulation System (JMASS).

JWARS is intended for joint campaign analysis and is being directed by the Deputy Secretary of Defense. JSIMS focuses on the operational level of war and will develop and deliver an M&S system capable of joint battlestaff training by 2000. JMASS provides a common environment focused on detailed tactical modeling for requirements development, acquisition, and testing. When these efforts are complete, we will be able to replace an aging suite of legacy models and simulations to more accurately simulate modern aerospace power.

Wargaming

Wargames are invaluable tools with which to explore innovative ways to employ military forces. Our Service is sponsoring a series of Global Engagement wargames with the support of our sister Services to better understand the contribution of air and space forces to the Joint Force Commander.

We initiated this series in 1996 with Strategic Force 96 and followed it up last year with Global Engagement 97 (GE 97). GE 97 was enhanced by the addition of a seminar-based policy pregame where a select group of players, representing many principal advisors to the National Command Authorities, explored the implications of increased space and information capabilities on national policies and international treaties.

Global Engagement 98 (GE 98) will also include a policy-level pregame to be held near Washington, DC, in June 1998. The operational game will be held the following November at Maxwell AFB, Alabama. GE 98 will explore the transition of forces from a small scale contingency to a major theater war in the 2008–2009 timeframe. Scenarios will challenge current CINC's' staffs to test and evaluate emerging concepts of operations against viable threats and plausible enemy actions. Key aspects will include the employment of an AEF and the application of a rapid halt of advancing enemy forces to limit the conflict and avoid attrition warfare.

Revolution in Business Affairs

In addition to operational innovation, we must adopt innovative, modern commercial business practices to free up precious resources for modernization. We must remove redundancy; use competition to improve quality and reduce costs; and reduce support structures both to free up resources and to focus on core competencies.

We are capitalizing on the revolution in business affairs by moving away from traditional means of doing business in acquiring and supporting our forces. We have instituted an aggressive series of reforms in this regard that extend across the range of our activities.

Strategic Business Planning

Sustaining the current force while simultaneously investing in the systems necessary for operations in the 21st century is a significant challenge in today's fiscally constrained environment. Our key Air Force leaders responsible for accomplishing and supporting acquisition and sustainment have joined together to embark on a shared vision and commitment toward a strategic business plan that moves the acquisition and sustainment communities toward better business practices and contin-

uous process improvement. The goal is to reduce costs without sacrificing mission capability.

Partnership with Industry

In June 1997, our senior leaders in acquisition, requirements, and planning and programming signed a memorandum encouraging Air Force members to communicate more openly with industry to promote a better understanding of our requirements in terms of mission and affordability issues. The intent is to promote innovative and more affordable business solutions. This new partnership is already showing progress in the form of acquisition reform, commercial off-the-shelf acquisitions, lean logistics, and competition and privatization.

Acquisition Reform

We are changing the culture of acquisition. The emphasis is to acquire all products used by the Air Force “better, cheaper, faster” and in a “smoother” more streamlined, well understood process. Virtually every new acquisition program is taking advantage of commercial practices by altering its strategy toward commercial specifications and standards, privatization, competition, commercial off-the-shelf technology, and contractor system responsibility. Through our Lightning Bolt initiatives in streamlining, teaming, and innovative acquisition strategies, we have realized \$7.1 billion in savings from previously budgeted funds and \$11.8 billion in cost avoidance. Newer efforts focus on continuous process improvement and establishing strategic steps to ensure that acquisition reform becomes the norm. To accomplish these objectives, we will continue to advance the professional development of our acquisition workforce by providing quality continuing education and training.

Commercial Off-The-Shelf (COTS) Products

Using commercial and non-developmental items is a key factor in achieving the needed economy of Air Force resources. Our focus is on increasing the use of current commercial non-developmental products, processes, and practices while improving the public-private sector business environment to enable a greater use of COTS. Some initiatives include: the conversion of 17 percent of our military product specifications to commercial item descriptions or non-government standards; the establishment of a market research working group to define commercial market research techniques that reveal the best commercially available items to insert into military systems; and the preparation of a draft COTS Handbook to aid in identifying and procuring commercial items.

Lean Logistics

Lean logistics includes a number of complementary initiatives designed to improve the capabilities of operational units by integrating and applying state-of-the-art business practices across all logistics functions and processes. For example, we have implemented a new method to compute base and depot stock levels which have reduced expected backorders by 17 percent, saving \$70 million in depot repair dollars and eliminating \$60 million in unfunded repair requirements. We have also instituted an automated method to prioritize depot repair and distribution actions to optimize fleet aircraft daily availability.

The objective is to maximize operational capability by using high-velocity, time-definite supply and delivery processes in lieu of large inventories to manage mission and logistics uncertainty. This results in shorter cycle times, reduced inventories and costs, and a smaller mobility footprint, which are critical to achieve Air Force agile combat support objectives.

Competition and Privatization

We are taking a long-term approach to competition and privatization. This entails charting a strategic path for us—now and in the long run—to make the most effective use of private sector capabilities while maintaining or improving our readiness and quality. Innovative solutions, improved performance, and increased savings should result from the increased competition inherent in the OMB A-76 cost comparison process and the increased role of the private sector. With no growth planned for total obligation authority, the savings accrued from competition and privatization will be key for future modernization. Our competition and privatization initiatives are designed to preserve “tooth,” streamline “tail,” and support modernization.

We are pursuing dual and joint-use initiatives for workloads with the private sector to use more efficiently the existing industrial capacity at the three remaining Air Logistics Centers that remain after BRAC 95. For the workloads not required to support core capabilities at McClellan Air Logistics Center, California, and San Antonio Air Logistics Center, at Kelly AFB, Texas, we are continuing with public-private competitions. The results of the first of the public-private competitions, the

C-5 Programmed Depot Maintenance at Kelly AFB, Texas, were announced in 1997. Warner Robins Air Logistics Center in Georgia won this competition with an expected savings of \$190.2 million over the next seven years. Currently, two additional public-private competitions are planned—one for consolidated depot maintenance workloads at McClellan AFB, California, and the second for propulsion workloads at Kelly AFB, Texas. These competitions should be completed in 1998.

In the area of privatization, we are pursuing initiatives in housing and utilities. We are using privatization to upgrade, improve, and replace substandard family housing and eliminate our 14,000 unit deficit. Of the 110,000 housing units in the Air Force-wide inventory, 58,000 require upgrade, improvement, or replacement. Seven projects are currently proceeding through the privatization process with more anticipated.

We are also moving forward with the privatization of base utilities in response to the Secretary of Defense's Defense Reform Initiative Decision. The first privatization project in this area will be awarded in July 1998 for the electrical distribution at Youngstown Air Reserve Base, Ohio. Under the current execution rules, we anticipate conversion of at least 175 water, wastewater, electrical, and natural gas systems.

Financial Reform

We continue our efforts to improve financial management systems and practices. We need better financial management in order to provide our commanders with high-quality financial information, eliminate financial irregularities that damage public confidence, and comply with the law.

Improving financial management requires several key steps. Compliance with the Government Performance and Results Act (GPRA) is one of them. GPRA is important to financial management because it mandates the creation of output measures that can be used in financial reports and related to financial data. During the past year, we have supported OSD efforts to develop output measures and comply with other requirements of GPRA. We have also incorporated some GPRA output measures into our financial statements required by the Chief Financial Officers (CFO) Act. We are experimenting with activity-based costing, training our people on its use, and assisting in studies. Several of our commands are experimenting with new approaches to capturing the cost of ownership in order to identify areas to reduce operating costs and to help decision makers determine ways to reduce costs.

We are also improving our CFO financial statements. These statements are publicly available and provide us an opportunity to demonstrate that we are good stewards of public funds. We have achieved relatively clean audit opinions on our military and civilian pay accounts and improved the information related to contingent liabilities. Now we are focused on making the statements more useful to commanders and seeking early implementation of some new statements required by the Federal Accounting Standards Advisory Board.

Finally, we have undertaken an aggressive effort to improve our financial systems in order to provide better information to our commanders and comply with the CFO Act. In the near term, this effort involves modifying existing systems to provide better cost data and deploying already-developed systems (such as our Automated Business Services System) that can reduce errors in financial data. In the longer run, we must replace most of our existing systems. In most cases, we will choose the best-of-breed from among all service systems and modify the winner to comply with the CFO Act and provide adequate cost data. During the last year, we have made substantial progress on several systems efforts including one to replace the existing financial systems at Air Force depots with a modified version of a system in operation at Navy aircraft depots.

Environmental Restoration and Compliance

Environmental compliance, restoration, and conservation are essential to ensure the Air Force has continued access to ranges, airspace, and installations. Stable funding allowed the environmental restoration program to maintain its 1997 clean-up schedule at all contaminated sites. The firm commitment to know and obey environmental laws and regulations has resulted in a dramatic reduction in the number of open enforcement actions against the Air Force from 263 in 1992 to only 16 in 1997.

In May 1997, the Air Force received 4 out of 14 White House Closing the Circle Awards which recognize people and groups for leadership in pollution prevention. The winners were: the Space and Missile Systems Center, Environmental Management Branch, Los Angeles AFB, California, for improved launch rocket systems; the 375th Civil Engineering Squadron, Scott AFB, Illinois, for its recycling program; the Environmental Management Directorate, Ogden Air Logistics Center, Hill AFB,

Utah, for waste prevention; and Headquarters Air Combat Command, Langley AFB, Virginia, for its global environmental outreach program. Additionally, the Secretary of the Interior characterized Eglin AFB, Florida, as the best protected, best managed property that he had seen anywhere in the world. These examples represent our commitment to protect America's natural resources as we execute our missions.

Partnerships with governmental and non-governmental organizations are fostering biodiversity and integrated ecosystem management at many installations. We are working closely with the Environmental Protection Agency (EPA) and state partners to seek common sense ways to achieve common goals. In November 1997, we signed an agreement at Vandenberg AFB, California, with the EPA and the Santa Barbara County Air Pollution Control District to reduce environmental program costs and apply savings directly to reducing pollution from the base. Vandenberg AFB was the first DOD installation to sign such an agreement with the EPA. We plan to direct environmental compliance funds into water conservation and air and water pollution projects. We will use the savings to purchase and operate cleaner operating boilers and equipment for the base's power station. The result will be less money spent on administration and more invested in improving air quality. The Deputy Undersecretary of Defense for Environmental Security cited Vandenberg as the model for this type of partnership. Environmental investment agreements are an important cooperative step toward sustaining both community and Air Force operations.

Base Transfers and Realignments

We continue to work with the communities impacted by base closure/realignment to put the property and facilities into economic reuse. For example, Pease AFB, New Hampshire, is now Pease International Tradeport, employing 1,219 people at a brewery, a consular center, an airfield, and a steel manufacturer, among others—where only 400 civilians were employed when the base was active.

In 1997, we completed Economic Development Conveyances (EDC's) for property at six closure/realignment bases. Most notably, we signed an EDC with the Greater Kelly Development Corporation for Kelly AFB, Texas, just two years after the base was announced for realignment. We have also reached final agreement on the terms of an EDC with the County of Sacramento and are working very closely to complete the documentation required to facilitate the transfer of McClellan AFB, California, from the Air Force to the County.

Other Cost Cutting Initiatives

Additional ongoing cost cutting initiatives implemented or investigated in 1997 include: (1) replacing government bills of lading with commercial bills of lading for air express cargo shipments; (2) using commercial express carriers for small arms and ammunition shipments; (3) increasing functionality between Air Force and commercial carrier transportation data and software; (4) using express carriers to ship classified material; (5) discontinuing volume printing of regulations and instructions; and (6) reengineering distribution of publications via electronic media such as the internet and CD-ROM.

CONCLUSION

America is an aerospace nation and its aerospace forces are an essential element of our nation's military capability. They possess the flexibility to fight across the spectrum of conflict anywhere on the globe, with the speed and range necessary to halt aggression in its tracks.

America's Air Force will remain a preeminent tool of U.S. military power with rapid global ranging forces empowered with stealth and precision weapons. We will continue to sponsor research and development to exploit the full spectrum of aerospace technology and continue to assist all the Services' transition to effective exploitation of our space assets. Finally, we will remain a key enabler of U.S. land and sea forces by ensuring air dominance, and through robust airlift, air refueling, and space support.

The Air Force has come a long way in the past five decades and has an exciting journey ahead. We are laying the groundwork for that future today as we execute our contemporary military mission, shape our Service for the future, and develop the airmen that will lead us in the 21st century. This is a journey that will take us into new, uncharted territory. And it is one that will benefit every member of the joint warfighting team.

BIOGRAPHICAL SKETCH OF F. WHITTEN PETERS

F. Whitten Peters is undersecretary of the Air Force, Washington, D.C. He is responsible for all actions of the Air Force on behalf of the secretary of the Air Force and is acting secretary in the secretary's absence.

Prior to being appointed to his current position, Mr. Peters was the principal deputy general counsel of the Department of Defense where he worked a wide range of issues, including acquisition reform, countering domestic terrorism, protecting the department's information systems and affirmative action. Before serving as a senior executive with the federal government, Mr. Peters was a litigation partner at the Washington, D.C. law firm of Williams & Connolly, where he specialized in complex civil and criminal litigation, including the defense of government contract fraud, antitrust, tax and security cases. He has extensive experience in representing individuals and corporations in compliance and ethics programs, internal investigations and suspension and debarment proceedings. He has written and spoken extensively on acquisition reform, legal ethics and criminal law issues.

Mr. Peters and his wife, Monnie, have three daughters: Elizabeth, Mary and Margaret.

BIOGRAPHICAL SKETCH OF GEN. MICHAEL E. RYAN

General Michael E. Ryan is chief of staff of the U.S. Air Force, Washington, D.C. As chief, he serves as the senior uniformed Air Force officer responsible for the organization, training and equipage of 750,000 active duty, Guard, Reserve and civilian forces serving in the United States and overseas. As a member of the Joint Chiefs of Staff, he and the other service chiefs function as military advisers to the secretary of defense, National Security Council and the President.

The general entered the Air Force after graduating from the U.S. Air Force Academy in 1965. He has commanded at the squadron, wing, numbered air force and major command levels. He flew combat in Southeast Asia, including 100 missions over North Vietnam. He also served in staff assignments at the major command level, Headquarters U.S. Air Force and the Joint Staff. As commander 16th Air Force and Allied Air Forces Southern Europe in Italy, he directed the NATO air combat operations in Bosnia Herzegovina which directly contributed to the Dayton Peace Accords. Before assuming his current position, the general was commander of U.S. Air Forces in Europe and commander, Allied Air Forces Central Europe, with headquarters at Ramstein Air Base, Germany.

General Ryan and his wife, Jane, have four children: Michael, Mary Kathleen, Sean and Colleen.

CHAIRMAN'S OPENING REMARKS

Senator STEVENS. Thank you very much.

Mr. Secretary, I note your distinguished record before you came to Government and I think we are very fortunate to have a person of your background be willing to be Secretary of the Air Force. I hope you take no offense when I tell you that when you mentioned the fact that you have the power to close bases, in an election year, as an Acting Secretary, you send shivers through everyone's back. I hope you recognize the difficulty that we would have in getting approval of your budget should you carry out that threat.

Now both you and the general have mentioned that you would like to close bases. I would be happy to have you give me a list of the bases you would like to close. The difficulty is that the savings we made out of the last three rounds of base closures were more than absorbed by expenditures that were not authorized by Congress in deployments to Bosnia and other places around the world.

We have had to reprogram, reprogram, reprogram, and reprogram, and we have decided we are not going to reprogram anymore.

Now the real problem with it is we spend more of our time and so do the members of the Air Force trying to figure out where to get the money that has been spent without authorization, how to

reshuffle accounts, than we do in trying to figure out what to do for modernization.

I believe we are going to have to close some bases. But until we see some action with regard to McClellan and Kelly, which were kept open during the election process by the President as a candidate, I don't think you are going to get support for the BRAC process.

Now the idea that we should be berated about not closing bases at the beginning of a hearing on how can we find the money to continue right now with this supplemental just crossing my desk, the only way we are going to swallow that is to declare it all emergency. I really think that we are jeopardizing the future of our modernization program if we do not make savings. I don't think it is clear yet that the only saving we can make is through base closures.

I come from a State that was the only State in the Union that was invaded in World War II, and one of the reasons it was was its bases were denuded in the long peacetime period before World War II.

If you want to talk to me or the Senator from Hawaii about readiness, we would be happy to quote some history to you.

The difficulty I have right now is I don't know where we are going to find the money for modernization and I agree we should make savings. I would urge you to start looking at some of the things we have been talking about up here and that includes consolidation of functions. Consolidation of bases really has not given this committee any money to shift around to the modernization program—none.

We have not had \$1 go from base closures into modernization. I would be glad to have you prove that and if you want to look at it, I will show you the figures. We spent more money, as I said, in unfunded, unauthorized operations in Bosnia and other activities, such as we are now spending in Iraq. But we are going to cover that with this emergency funding and I hope Congress will join in the emergency.

But I would urge you to stop complaining about base closures and start telling us how to save money in other areas. For instance, we maintain training schools for pilots. Each one of the services does, and for the same aircraft. Why shouldn't we consolidate those functions? What have the services done about consolidation of functions rather than consideration of bases?

I do not think consolidation of bases automatically saves money at all. One thing that bothers me right now is, if we look at what is going on right now, General—and you mentioned it in your statement—we now have four times greater OPTEMPO than in 1989, but with one-third less end-strength. We now have had 33 percent of the active pilots completing tours reenlist. I think that is the lowest since I entered the Congress.

Under those circumstances, it seems to me that morale, which would be highly disturbed, Mr. Secretary, by a political decision to close bases, as opposed to one that was based on the Base Closure Commission, it seems that morale is going to be affected by bases being closed without the proper process being followed.

So I hope we have heard the last of that, Mr. Secretary—again, respectfully. I do not want to be threatened again. And I think the committee feels threatened by that concept.

Our budget covers specific bases. If you want to close some, I would urge you to tell us what you want to close. We will help you. If you want to close some bases, we will do it in the 1999 bill. But tell us where they are and why and stop telling us that we ought to do it without telling us where you want to do it.

General, I really think the problem about pilot retention has a lot to do with the overall pay scale now as compared to private aircraft, private concerns, and the way they are hiring away your pilots. I would like to see you give us a suggestion. We had to cover this once before with the doctors in the military. We had to cover it before with scientists in the military. Why shouldn't we face the fact that if you are going to keep the top grade pilots, we have to pay them more?

I would urge you to give us not just the incentive pay concept or the reenlistment bonus concept, but raise their pay across the board. I have talked to several of these young people. They left because they felt their families would be better off. They are passing their prime years flying in the service and they didn't feel the compensation was high enough. I think the Congress would be ready to adjust the pay of pilots to meet this problem of retention.

Last, the one thing that really worries me right now, Mr. Secretary and General, is the report from Europe that at least two fighter squadrons were not able to maintain readiness, were red-lined too often, and were not capable of meeting the overall goal of the Air Force, particularly when deployed. It is bad enough to have that happen here at home. But if it is true that there were two fighter squadrons in Europe that could not maintain their aircraft availability because of lack of spare parts, I think something has to be done about the logistical concept of distribution of parts and their availability. We would be happy to work with you on that.

I would hope that, above all, once we deploy forces overseas, they are not shortchanged with regard to parts. That report was very disturbing to me when it first came in.

If you have any comments about what I said, I would be glad to let you comment. But I have to tell you that that article disturbed me no end.

FUNDING REQUEST OVERVIEW

Mr. Secretary, do you have any comment?

Mr. PETERS. Senator, the point of the discussion that I had and also to a certain extent that General Ryan had at the Air Force Association [AFA] last week was clearly that BRAC is the right way to go if we are going to reduce infrastructure because it is the way that is best for the communities that have supported the military for so many years.

There really are three reasons at this point why we think we need to be able to close bases. Money is one of them but is not necessarily the most important. There are two other reasons that are really critical.

First, with respect to our forces, we are at a point now where, as General Ryan said, the forces who are left at home are working very long hours because the number of people left on the bases from which our deploying squadrons leave are not large enough to maintain the base during the time of deployments.

We think we have the right overall force structure, but what we need to do is put those forces on fewer bases. Now that can be done, obviously, without closing bases. But it also will stress the bases from which we take those people and probably we would be better, rather than stressing a lot of bases, simply to close several and go on from there.

Second, as the GAO has noted in recent studies and as we have looked at in our own planning process, it makes sense to try to consolidate our aircraft into larger units. Again, that requires taking units off of bases and moving them.

In the QDR we have looked at both of those options and some of the QDR numbers actually depended on taking significant numbers of aircraft off of bases and relocating them. When we went down and talked to Secretary Cohen about that for this year, for the fiscal year 1999 program, a decision was made that we would not do that in favor of trying to get a BRAC process.

These are really important things we are going to have to do. If BRAC is simply not going to happen, we have to look at other ways as best we can to consolidate forces and to consolidate aircraft.

For example, one of the places where we had hoped to get modernization aircraft for the National Guard was by taking them out of an active duty fighter wing. We have not done that. We still need to look at that. The best way to do that would probably, again, be to actually close a base and simply take those aircraft and move some of them off to the Guard.

That is where we are. On the money, we believe we have made about \$5.6 billion off the BRAC rounds for the Air Force and that number goes through 2001. That is the net number. Some of those savings will continue to go on for many years. There is no question that that money has not gone all for modernization. But we still need to be able to get that money.

ENVIRONMENTAL COSTS

Senator STEVENS. Hasn't any of it gone there? We spent more than \$8 billion in Bosnia. We have had to put that up. None of it—I take that back—about \$1 billion was requested, finally, last year. But at least \$7 billion was spent against \$5.6 billion in savings.

I don't see how that has gone to modernization. Until we find some way to assure that the money that we save is going to go into modernization, I think that is another problem we have with BRAC. I would like to put it into an account so that you can only use it for BRAC. We have to look at that in terms of amending the BRAC law.

I hear you. Mr. Cortese reminds me that the bill is still not in on the environmental costs on the bases we closed. It is probably going to exceed the savings by the time we are through.

Mr. PETERS. The number I just gave you is based on our estimate of the environmental costs. That is the net above environmental costs through 2001. We think we are going to be, in the Air Force,

net over \$5 billion, including the environmental costs. We actually have turned to net savings at this point. There was an up-front cost for environmental. There is no question about that. There are continuing costs. But our estimate is that by the end of 2001, we will be net positive in the Air Force of about \$5.6 billion.

Senator STEVENS. We hear you. I know we have to get some money from somewhere. I don't like this budget. This budget from now to the year 2003 is not going to increase despite the fact that we are going to start building up a surplus before—you know, it's not really a surplus in the overall connection of the national debt. But the balanced budget goal was 2002 and it is balanced now.

I think part of that came from the fact that we paid peacekeeping costs out of defense and we don't have the money for modernization that we should have had.

Now I hope also to have something to say about whether that happens again.

Again, our problem is how to get the money to help you. I don't think you are going to get it in terms of the money we need for modernization, base closures, particularly with the forces deployed overseas the way it looks like they still are going to be, for an indefinite period ahead, if I understand what the President said. I don't know how you are going to move those savings into anything other than paying the costs of the deployments in Bosnia and Iraq.

So this is a tough one for us.

Senator Bond.

F-15A'S

Senator BOND. Thank you very much, Mr. Chairman.

General Ryan, I raise an issue concerning our National Guard general purpose squadron. I understand the procedural restrictions on upgrading F-15A's, but there are A's out there which still have a lot of life on them, and as I understand it, many of them with more life than some of the early model F-15C's.

Now I understand that the Air Guard F-15A to F-15C replacement program the Air Force anticipates will be forced to the right, extending the sunset date of the F-15A because of other procurement problems. There are, as we know, Guard units out there right now and will be for the foreseeable future.

Is there anything we can do to help with an F-15A system upgrade, such as accelerating an installation of fighter to fighter data link to bring them to tactical parity with the rest of the Air Force TACAIR inventory? Do you see any way to speed up the process to take advantage of the experience of Guard pilots when they are asked to integrate with other deployed units of the total force?

General RYAN. Senator Bond, we continually look at the force structure out there in our Guard and Reserve units and try to make sure, as best we can, that they are compatible with the active force because we intermix them all the time, as you well know.

We have looked at the F-15A models. Extending their life for a significant amount of time would cost about \$11 to \$15 million apiece. We will continue to look at that as we look at what happens to our force structure as we move out and how our budgets are approved.

But, as you know, we are committed to making sure we have the interoperability. In this year's budget with our Guard forces we increased the amount of data links that we are going to have on our aircraft. We eventually want to get to everyone being compatible with Link 16. In the meantime, we are doing EPLRS on our F-16's in the Guard. We are increasing their capability for precision guided munitions. We will go back and look at the A models in light of what our force structure will be in the future to see if there is something we need to do to that force if modernization pushes out to the right. If it does not push out to the right, then the A-B models fall into that timeframe where we cannot upgrade.

But I will give you an answer for the record.
[The information follows:]

F-15A's

The USAF is aggressively pursuing force structure modernization programs. As a result, we expect the conversion of F-15A's to F-15C's to occur on schedule. Instead of modifying the F-15A's, we will continue with plans to upgrade to F-15C's in anticipation of their introduction into the National Guard.

PILOT READINESS

Senator BOND. I appreciate that. Obviously, we want to see the schedules maintained. But around here, I have only been here for a couple of years and I have seen schedules tend to slip, particularly when you have as many other requirements as our chairman has just mentioned on it.

I mentioned some ideas about pilot training and readiness. Do you have any thoughts on that?

General RYAN. On our pilot training, as the Secretary mentioned—correction—as the chairman mentioned and the Secretary talked about, our pilot retention numbers are not what they ought to be. We have polled our people and asked them what is it that would increase your proclivity to stay with us.

You have to remember that these men and women are the people who have already served 9 years in our service. Most of them have families. Most have been deployed to the desert multiple times. They are looking for stability in their lives as much as they are looking for anything else and that their families be well taken care of.

We are working those issues as hard as we can. We have cut down on the deployment time that they are gone to 45 days so that they do not lose their skills. We have, with the governments in the region, Turkey and Saudi Arabia, been allowed to train there, not just do figure eights in the sky. Turkey has allowed us training days each month for our forces to go out and train as they need to and we have gotten similar capabilities in the gulf.

That is not as much of a problem as it was before.

We think that the bonus, that the committee was very instrumental in helping us get, has kind of stemmed the tide. What we are looking for is something to turn it back around.

THE TUNNER

Senator BOND. We will want to follow up on that. I have just one very quick, last question.

Could you give me your views on the performance of the 60-K loader and your near-time procurement strategy?

General RYAN. You know, we call it the "Tunner," named after General Tunner, who ran the Berlin airlift and, in fact, flew the Hump. I was with his wife 4 or 5 days ago, a marvelous woman, who herself is an aviator.

The Tunner is probably a huge step forward for us because of its capability to move equipment from high loads to low loads quickly and reliably.

Senator BOND. Is it working well?

General RYAN. It is working great. We have not had any problems with it and we are going to buy 300-plus of them and put them around the world to help with our mobility throughput.

Senator BOND. I would like to help you with that.

Thank you very much, General.

Thank you, Mr. Chairman.

Senator STEVENS. Senator Cochran.

QUALITY OF LIFE

Senator COCHRAN. Thank you, Mr. Chairman.

General Ryan, you mentioned that the biggest problem the Air Force faces is retaining pilots. You pointed out the numbers to illustrate the problem. I wonder, given the fact that you said you were trying to deal with housing problems and other quality of life issues to try to help retain pilots, how does that coincide with the low amounts being requested for family housing, military construction, and the other things that you really need to do in order to improve these quality of life situations? I notice that the military construction request, for example, is down \$160 million in terms of National Guard and Reserve military construction.

The other part of the budget is down \$332 million from the fiscal year 1998 budget. The family housing budget is down \$100 million from the funding level of 1998.

Do we need to add more money for these items?

General RYAN. As we worked our way through our budget, what we tried to do, was balance the modernization and the readiness accounts along with our people and our quality of life. Those were our three main pillars.

No; it is not what we want. It is not what we think our folks deserve. But it was what we had to distribute in our budget and we tried to do it in a very balanced manner.

We are looking at other ways to leverage that money, too, and that is in the private sector, particularly with family housing, to be able to partner with local communities and the capability to renovate homes, and then be able actually to do a rental agreement.

We have several tests of this going on in Texas, at Lackland. We are doing this with a group of houses to give us more leverage on the money we have.

But, to answer your direct question Senator, we would like to have spent more money in our quality of life side. We will always want to spend more money on our quality of life side to take care of our folks.

PILOT TRAINING

Senator COCHRAN. One other impact that is possible from this is the pressure on pilot training facilities. At Columbus Air Force Base in Mississippi, for example, I am told that they may need to increase their pilot production by over 225 percent to train new pilots to take up the slack from those who are retiring early. This is over a 3-year time period, from fiscal year 1996 to fiscal year 1999, a 225-percent increase.

Are there funds in this budget request that will help deal with the problem at the pilot training bases?

General RYAN. Yes; we have looked at our pilot production to ramp it from our low several years ago of about 500 pilots a year for the active duty force up to 1,100 pilots for the active duty force by the year 2000. That is a big increase.

Quite frankly, we made a mistake in the Air Force in our draw-down when we cut our pilot training back. It was not a smart thing to do. Now we are suffering some from that decision.

We have in the budget the capability to ramp. In the 1999 budget, included in there is our ramp-up in pilot training. We are still studying how to get to the 1,100 number which includes expanding our pilot base to include other bases, other than the current pilot training bases.

We have worked with the Navy, to answer your question, Mr. Chairman, in increasing our capability with them. As you know, we are jointly training our pilots with the Navy right now. The Army does all of our helicopter pilot training. So we have combined these functions as best we can in ramping on up. We are buying a common airplane, a JPATS airplane, for the Navy and the Air Force and we are looking for every opportunity to produce pilots.

If you look at the numbers right now, if the Army, Navy, Air Force, and Marine Corps let every pilot go who was eligible to leave, that would not one-half fill up the bucket of the 13 major airlines' needs over the next 10 years. So we are in a deficit war here for the service of these folks.

The airlines are hiring mightily and they will continue to hire. If you look at it with the commuters, it does not even come close to one-quarter of the requirement. This is a national problem, not just an Air Force problem.

AIRBORNE LASER

Senator COCHRAN. Mr. Secretary, both you and General Ryan mentioned the fact that you had put money in this budget for the Airborne Laser Program. The amount is \$292.2 million. Is the fact that the Air Force is willing to put this in their own budget an indication of how important this program is to the Air Force and the capacity to defend against missile attacks?

Mr. PETERS. Yes, it is, Senator. It is a very important program to us. We think it is on track. We have looked at the various test results we have gotten. We think we are where we need to be and that we, in fact, are going to be able to test this thing in the air in 2002, which is the goal.

This is the only program we have at the moment in the theater missile area which can knock a missile down in the boost phase.

It also has important collateral benefits in terms of tracking missiles as they come up. Information about missiles, the leakers that get through, can be given back to others, the theater missile defense [TMD] units, and it is a very, very important program for us, one that I think is essential both for force protection and also as an enabler for the other theater missile defense systems.

Senator COCHRAN. Is the amount of money available to you related to the date of deployment of the weapons system? In other words, if we appropriated more money than you requested, would that accelerate the deployment schedule and further enhance the protection of our forces?

Mr. PETERS. I believe the answer at this point is no, that we are technology driven and research and development driven through 2002, which is what we need to get to. We really need to make sure this works correctly before we invest additional funds. But I think we are where we need to be through the 2002 date.

Senator COCHRAN. As I understand it, one of the attractive aspects of this system is that you are able to attack a missile in its boost phase and that this enhances the ability to protect against damage, destruction from hostile weapons. Is that one of the driving forces, one of the reasons why this is such an attractive option for us?

Mr. PETERS. Absolutely, Senator. This is the only boost phase intercept program we have ongoing at the moment. As we worry more about weapons of mass destruction, we certainly would like any weapons of mass destruction to fall back on the shooter rather than on our forces.

So this is very critical to us. It looks like the only technology right now that can do a boost phase.

Senator COCHRAN. Somebody in the Secretary of Defense's office has criticized this program as being susceptible to problems because of atmospheric turbulence. Is that a realistic criticism? Is that based on science or supposition?

Mr. PETERS. In this area it is based, we believe, on some early test results which we believe our data collection efforts have disproven.

There are technologists on both sides of this argument as to what extent the laser beam will be defracted and made turbulent by the air that it has to shoot through.

We had set some minimum parameters. We believe, based on data we have collected around the world, that the turbulence we are going to experience is within those parameters. We believe that the measures we have to correct for that turbulence are right where they need to be.

So at this point, it is our sense that the only way you are going to be able to resolve this argument is by putting an airplane in the air, shooting the laser, and seeing what happens. I think we are in the area where you can argue about it or go try it. We are at the go try it place at this point.

General RYAN. I would say that that argument is also waning. We have had multiple investigations of the phenomenon of refracting the beam as it goes through and most of the serious scientists now say yes, we've got it pretty well solved.

Senator COCHRAN. Thank you very much, General.

Thank you, Mr. Secretary.
Senator STEVENS. Senator Harkin.

PILOT RETENTION

Senator HARKIN. Thank you very much, Mr. Chairman.

Mr. Secretary and General Ryan, I just have two things I want to cover. First is on the retaining of pilots. This has always been a problem. It has been a problem since I was a pilot in the Navy. You get trained and you find out that you can get more money on the outside, that things are more stable in the civilian world. You are always going to have that problem in a free society and in a market economy. This is why I have always advocated that we pay more attention to our Reserve forces and our National Guards.

I was a Navy pilot. I left the Navy. I joined the Reserves. I flew every weekend. I put in 4 weeks of active duty every year. I was better trained and qualified in the Reserves than I was on active duty at the cost to the taxpayers at one-third as much money.

I did not have all of the collateral duties and I was not training to be CNO or anything else. I just wanted to fly an airplane. So I think we shortchange a lot of our Reserves and our National Guard forces.

A lot of these pilots that are leaving the Air Force, just like they are leaving the Navy, want to continue to fly. They like to sit in that seat. They could do that in the National Guard and in the Reserves at probably one-half, no, one-third as much of what it costs us to keep them on active duty.

We ought to be focusing on that and provide that kind of structure for them because they can be called up and sent into active duty at any minute as well qualified. General—I am sure you will agree with me.

General RYAN. Yes, sir.

We are talking from the same sheet of music. We are trying to hire every one of those folks who come out of active duty into our Guard and Reserve forces. Our Guard and Reserve force in the Air Force provide us with integral capabilities that we use all the time. In fact, we are stressing those forces fairly heavily right now.

We are using our Guard and Reserve forces to the maximum extent that they think they can sustain right now.

Senator HARKIN. That they can sustain?

General RYAN. That they can sustain.

Senator HARKIN. I think our job is to give them an ability to sustain even more. That's what I am saying. They may be at their limit. I am just saying that I don't think that limit is enough right now. That is my point. I am saying that as a policymaker.

We have a lot of people out there who are qualified pilots who are leaving, who we could keep in the force. I know them. I know what they are like. I know where their heads are.

General RYAN. Yes, sir; and we are trying to recruit every darn one of them to come to us into the Guard and Reserve.

Senator HARKIN. And I'll bet you that it is not too hard to recruit them for Reserve duty or National Guard duty, either.

General RYAN. Yes, sir.

Senator HARKIN. Do you think it is hard?

General RYAN. In our Guard and Reserve, we have two different kinds of pilots. We have pilots who are full-time pilots with the Reserve.

Senator HARKIN. Right.

General RYAN. About one-third of our force, our Reserve forces are full time.

Senator HARKIN. I understand.

General RYAN. The other two-thirds—

Senator HARKIN. Are the weekend warriors and stuff like that.

General RYAN [continuing]. We can get the weekend warriors pretty well. What we are having trouble getting, and the Reserves and Guard are working very hard on, are those folks who are full time, which is a similar problem that we have.

Senator HARKIN. I understand that.

General RYAN. They are the backbone that holds those units together as the part timers come in and out.

Senator HARKIN. I understand that problem. I would like to know what we can do to help beef that up, because those people tend to be more stable. They are located in a community. They are not moving around, they are not deployed. So what can we do to entice more people into that line and then help beef up the weekend warrior situation?

General RYAN. One of the things that we look at very carefully is not so much how much the Guard and Reserve can help us in our two major theater war paradigm but how much the Guard and Reserve can help us with our OPTEMPO right now. That is the driver.

RECRUITMENT

Senator HARKIN. I understand.

There is one other issue that I really wanted to cover with you. I am not going to get into weapon systems and all the big ticket items that you have.

I was reading your posture statement and on page 17 you discuss recruiting quality people. You say that recruiting remains a challenge. U.S. commitments abroad have decreased the pool of interested, qualified, potential recruits. Annual youth attitude surveys show the interest of young men serving in the Air Force has dropped from 17 percent in 1989 and stabilized at 12 percent.

Well, General, Mr. Secretary, since World War II, we have had an organization in the Air Force that develops leadership, discipline, motivation, interest in aviation, and flying. It is called the Civil Air Patrol [CAP]. And yet, for the last 13 years that I have been in the Senate, the Air Force has been treating it like an illegitimate child—get rid of it, ignore it, shunt it aside, defund it, everything else.

Mr. Chairman, the Air Force now is supporting, as I understand it, establishing the Civil Air Patrol as a grantee organization under OMB Circular 110. That would require the Civil Air Patrol to apply for funds through a grant review process and not be a part of, or receive funds through, the DOD appropriations process. This would make the Civil Air Patrol a nongovernment organization, similar to a hospital or research laboratory and would move the CAP from its present position in the Air Force budget process.

I just want you to know that I am absolutely, totally opposed to that. I look at your budget request on Civil Air Patrol and it goes down every year. In 1997, 1998, and 1999, it went from \$19 million down to \$13.9 million. I have to tell you that I think you are going in the wrong direction.

Do you want to get young people interested?

I had breakfast not too long ago with a man that I met recently, a very, very successful business man in Baltimore, an African-American. I was having breakfast with him and I said well, I have to leave now because I have a group of kids over on the Capitol steps who are CAP kids from Ohio. He said oh, the Civil Air Patrol. He said you know, I would not be where I am today, when I was stuck in the inner city of Baltimore, if it had not been for the Civil Air Patrol. He said that is what gave him the discipline and the motivation to succeed in life.

So I went over to the steps of the Capitol and met these kids from Cleveland, OH. The more I think about it, the more I think we are missing a great bet here. There are kids in these inner cities that need this, that want it, and it is not a big buck item.

If you want to increase the pool of young people that are motivated and that have an interest, this is where it is, General. This is where it is, Mr. Secretary. It is a small item.

And yet I have fought for 13 years in this Senate to keep the Civil Air Patrol alive, to keep it in the Air Force, to keep it from being shunted aside, to give it new duties and responsibilities.

A few years ago, we gave it the responsibility of drug interdiction and they have done a remarkable job. I keep pointing out the Civil Air Patrol can fly 1 hour of drug surveillance—oh, I don't know my figures right now—but it was at like \$40 an hour, something like that.

First of all, what you get is your pilots, General. They are out of the Air Force, they are flying for the airlines, they are in business, they are weekend warriors, and they love to go out and do this. They volunteer their time. They take their own cameras and we buy them the gas. It costs \$40 an hour.

For the same National Guard helicopter in Iowa to do drug surveillance in Iowa is like several hundred dollars an hour.

Look at the recent A-10 crash in Colorado, for the benefit of you people out there. For that A-10 crash in Colorado, people searched high and low. The Air Force searched and everybody searched. Who found it—the Civil Air Patrol.

Eighty-five to ninety percent of all of the search and rescue done in this country is done by the Civil Air Patrol, and quite successfully, too.

So every year I give this speech. But this year I am hotter on it than I have ever been before because, hopefully, we have some new leadership down there. I hope you will take a look at that budget. It is just wrong when you are going from \$19 million down to \$13 million.

Here is the Air Force on rescue and recovery services at \$46 million last year. The Civil Air Patrol was \$2.1 million, and yet it is the Civil Air Patrol that does 85 to 90 percent of the search and rescue in this country. I have to ask what is that other \$46 million going to the Air Force for?

I just hope that we will take a new look at the Civil Air Patrol. I want to know what your intentions are in terms of shunting it off and making it a grantee organization. If that is where you are headed, you are going to have a battle. I may be alone in it, but you are going to have a battle because I am going to fight it.

I think you could not say it better than in your posture statement. You want young people, motivated, interested in aviation. The Civil Air Patrol is the pool out there from which you can get them. I will just leave it at that.

Mr. Chairman, we need summer camps for Civil Air Patrol. We need weekend activities for kids in inner cities to go out to our bases and be involved in Civil Air Patrol. Yet we are not doing any of this.

I think it would be a great recruiting technique plus it will answer a lot of the problems you are going to have in the next 20 to 30 years for recruiting people.

I have had my say. I would like to hear your response.

General RYAN. First of all, sir, you are striking a chord with somebody who used to be a CAP cadet. I was in the Civil Air Patrol when I was a teenager.

CIVIL AIR PATROL

Senator HARKIN. Where are you from?

General RYAN. At the time, I was living in Nebraska, in Omaha.

Senator HARKIN. Interesting.

General RYAN. I had the leadership of the CAP in and sat down and talked to them about where we are going with the CAP. I have asked the Commander of Air Education and Training Command to come back to me and tell me how we can revitalize the program. I have asked our folks in the air staff to tell me the ins and outs of why we are going with the circular 110 definition of whether this is a grant or is direct funded in our budget kind of activity. It does not make a lot of sense to me that we change horses in the middle of the stream because of a legal interpretation. And if it is a legal interpretation, I would like to come back to you and see if we can get legislative relief so that we can directly fund the Civil Air Patrol.

I would like to meet with you also and talk about our Civil Air Patrol and how we can revitalize it. I am committed to that.

Senator HARKIN. I would look forward to that. I would love to sit down and talk with you about it. You have been involved in it for a long time. I didn't know you were a cadet. That is interesting. That's great.

Mr. PETERS. Let me add to that, Senator. In the 95 or so days that I have been the Acting Secretary, I have been to CAP functions twice, including the Martin Luther King function here at Andrews, where we brought many of these inner city kids from the District of Columbia out to Andrews for an evening. There are some very, very dedicated people there.

Senator HARKIN. That's right.

Mr. PETERS. We intend to continue to fund this. I have beat up my general counsel, as recently as this morning, saying that we have to get this resolved because we need to know a definitive an-

swer from OMB one way or the other, and if we need legislation to make this continue, we will try to get that.

Senator HARKIN. If you do need legislative relief, we ought to discuss that and we will come up with it. Again, I would like to talk to you about your projected budget on Civil Air Patrol and what you are looking at in the future. I don't like what I see in here.

Let's see what we can do to revise that. I would like to meet with you about that.

Mr. PETERS. Yes, sir; we'll get together.

Senator HARKIN. Thank you very much, General, Mr. Secretary. Thank you, Mr. Chairman.

Senator STEVENS. General, I would like to be included in those as an ex-Civil Air Patrol legal officer, as you probably know, but beyond that, as a pilot, too. The Senator was mentioning primarily young people. The search and rescue in my State is done by reservists and National Guardsmen who also volunteer as Civil Air Patrol. There is a bifurcated function there that we have to preserve.

I welcome his comments about the outreach for pilots, and I notice your comment about increasing pilot training. I just think we ought to open up the doors and train more people. We cannot get by with allocating the shortage among the services as far as I can see.

Senator Dorgan.

AIRBORNE LASER

Senator DORGAN. Mr. Chairman, thank you very much.

Mr. Secretary and General, welcome.

That question was asked of you a few moments ago on the airborne laser. I would like to just add to the question. There was a GAO report, critical of the program, and the press picked up on it.

Would you give me your impression of the criticism and what the Air Force is doing to respond to it?

General RYAN. When I first came to this job, I tried to get heavily into ABL. I have had people from laboratories come and talk to me. I have had the testers come and talk to me. I think the program, the criticism of the program, was based on lack of facts. I think the facts are in now and you don't hear the criticism that you heard before.

The facts are that the physics of the capability are there. We think we can do it. We have done the sampling, we have done the testing, we have done the warping of the mirrors, we have done the hard physics work to make this a viable program. What we are really looking forward to now is how to mechanize it so we can put it on the aircraft and fly the aircraft and do an airborne demonstration. That would happen in the year 2002.

We are well on course to that. It is a great capability. We should not be stuck in the defense of our folks in rear areas, in theaters where ballistic missiles are a threat, to being only able to catch them as they come in. We need to be able to go out and attack them where they are on the ground and catch them airborne in a whole series of defensive layers.

We think this is a vital capability and we think it is going to work.

TANKER FORCES

Senator DORGAN. The only reason I asked the question is the criticism that was leveled had real wings. I mean, it took off and was repeated and continues to be repeated.

I would encourage you to move aggressively in response to it because it is an important program.

Thank you for your response.

General, your predecessor, General Fogleman, was very high on the concept of basing the Air Force's tanker aircraft at core tanker bases. Has that thinking changed or are you pretty much in line with General Fogleman's thinking on that?

General RYAN. We have our tanker forces both stationed in theater and in the United States. But yes, we are trying, for efficiency's sake, to keep them in fairly large piles. That is still our motivation.

Senator DORGAN. So the concept of the core tanker base—

General RYAN. Is still there.

Senator DORGAN. Let me ask a question about the Iraqi crisis.

We had a lot of questions about basing options for aircraft with respect to any potential operations in Iraq. The question of where we might and might not be able to base certain aircraft in dealing with the Iraq crisis was something that was publicized widely. I would like to know if the Air Force was satisfied with the basing options that were available to it during the most recent crisis. If not, does that suggest a need for more long-range airpower?

General RYAN. I was happy with the basing options that we were presented with. What was unclear was whether we were going to be able to use the bases where we had the aircraft bedded down to prosecute an attack. That was the real issue.

Though there were declaratory statements made by many of the governments over there, we never came to a conclusive decision on whether those aircraft would be used or not. I was over in the theater not too long ago and traveled to all the countries where we had our Air Forces bedded down and talked to the leadership there. For the most part, they were very supportive, Kuwait particularly.

We will always, I think, need access to bases in regions where we have potential conflict. If we do not have access to those bases or do not have allies in those areas, then our long-range capability will be stressed—not only our long-range capability in bomber capability, but our ability to extend our forces out using our maritime forces also.

So there is always this balance that you will have to go through with that kind of activity. Each one of these has a different flavor.

What we would do in Bosnia is much different than what we would do in Iraq, and perhaps in the Korean Peninsula, and how we would apply the forces. So each one is different.

One of the problems with our long-range capability is the cycle times that we need, particularly with our bomber forces, in which I know you are very interested.

To be able to project the power from the continental United States, that far, and back is something that we can do. And we have a very good bomber force to do it.

But a sustained effort requires access closer. I would like to move the bombers in closer, quite honestly, to where we can get these cycle times down and use the full capability of the bombers.

REPORT STATUS

Senator DORGAN. Well, our B-52's have moved to Diego Garcia, and the cycle times from that island would not be too high. But, I would like to submit for the record some further questions on the bomber force, with the chairman's permission.

Let me ask Secretary Peters one additional question that relates to the question that the chairman asked on base closings.

The Congress has prohibited the formation of another BRAC Commission until the Pentagon submits a report back to the Congress. I offered the amendment in the Senate, which is now law, that required the report.

It is not a message to the Department of Defense or to the Air Force that we will not be supportive of downsizing or base closing in areas where we have facilities that are unneeded. We understand all of that. But the Congressional Budget Office has indicated that we do not have currently a very good method or a very good system of determining what the costs and the benefits have been of the base closures that we have already done.

We have ordered the closing of about 100 bases. Well over one-half have now been fully closed. The Congressional Budget Office says we would be very unwise to proceed until we understand what it is we have done and what the consequences are of what we have done.

On that basis, we decided, despite a call for more base closing rounds, to stop and ask for a complete report and an evaluation of what have we done, what has been done, what have been the costs and benefits.

Can you respond to that and tell us where you are in the process of trying to gather together these facts and the information for Congress?

Mr. PETERS. Yes, sir.

Secretary Cohen intends to try to submit that report, I think, in the April timeframe. We have also had the DOD inspector general and in the Air Force our own audit agency going out to look at these costs.

The DOD inspector general has been working this and, in at least one of the years—I don't know which one—has found that our costs were actually less than estimated and our benefits were actually greater than estimated. But that data collection effort is going on right now.

I know that because the Air Force is a couple of weeks overdue in providing the data, which I am reminded of almost daily. I believe that report will be coming in the April timeframe.

Senator DORGAN. What kind of overcapacity do you think exists, Mr. Secretary?

Mr. PETERS. At this point, we have not actually figured out exact numbers. But it is clear to us—and we have asked our planners to go back and look at this—that, as we become more of an expeditionary Air Force, we need to have larger bases.

In the POM cycle we currently are in, we have tasked our planners to look at consolidating and reorganizing various forces, including, for example, where training occurs and who does it: Active, Reserve, or National Guard. We have also asked them to come back to the Chief and me with a plan for how we would plus up these highly stressed forces, such as security forces and mechanics.

We will have that in the POM 2000 cycle. We are going to try to resolve a lot of those issues. That is where we are.

We know, though, from the QDR experience that we needed to take out one more active fighter wing in order to get aircraft for the National Guard. We did not do that because the Secretary felt that it was more important to try to go for a BRAC round. What we had planned to do was to pull substantial assets off of several bases. But doing that without BRAC is not the first choice.

So we know that, even to reach our QDR targets, we have to take a substantial number of aircraft off of existing bases.

BRAC PLANNING

Senator DORGAN. General Fogleman was remarkably candid last year when I asked him about this issue. He said well, I won't be here when the next round occurs. But he said if I were doing it, I would probably call for only one additional round. That was at odds with what had been discussed publicly.

Have you any comments on that?

Mr. PETERS. We are looking at our planning process right now. Our sense is that it will take two. But we are looking right now at trying to come up with an overall concept for what people have nicknamed superbases, that is, a base from which we could have substantial assets deployed without ruining the quality of life for people still left on the base.

In other words, we would like to avoid having our security forces who are left at home go to 12 hour shifts when we deploy with security forces overseas. So we are looking at that right now to try to come up with a better sense of exactly what skills those are, how many we need, and what their best locations would be.

General RYAN. One of our problems in our previous drawdown was, conceptually, what kind of Air Force were we going to be, going into the future. It has evolved that we are very much an expeditionary Air Force. We are going to be called to go overseas, provide our own force protection, provide our own living conditions, not live on the economy because of the seriousness of the threats that are out there from terrorists and others.

Given that paradigm, we are not structured for that kind of activity. We are spread very thinly around a lot of bases. We need to bulk up so that not only the forces but the infrastructure for the base is of sufficient size to keep it busy at home and efficient at home but also effective overseas. So what is happening to us right now, particularly in our security police forces, for instance, is we take them from many different bases and spread the load. So most of the bases out there are on 12 hour shifts for our security forces.

Our forces in the gulf, in Turkey and other places, are on 12 hour shifts. Then we switch them. So we are running 12 hour shifts on our folks both at home and overseas. We just have to stop that.

What we save in a BRAC is interesting from my perspective, but what we gain is our capability to do this mission that we have been at for the last 8 years and asking our folks to suck it up at home. We are, in fact, abusing them in some ways.

Senator DORGAN. Thank you very much.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you, Senator Dorgan.

Senator Domenici.

CONTRACTING OUT SAVINGS

Senator DOMENICI. Thank you very much, Mr. Chairman.

Mr. Chairman, I was not here for your entire opening remarks and your questions, but I want to join in the portion for which I was here. I want to join you in your comments with reference to how much we have taken out of the regular budget of the Defense Department for these unforeseen contingencies and events that were not planned for, led by Bosnia.

Frankly, I don't believe that we can have the United States military be bound by a multiyear, firm, in-place budget, the only part of our National Government so bound, and then insert and inject upon them the mandate that they pay for interventions like Bosnia, out of their regular budget. That is why we are here, with all these strains in terms of how are they going to live within their numbers.

You take \$5 to \$7 billion and it will fix a lot of the problems we are talking about. Maybe it is \$8 billion. But whatever it is, that is a big strain.

I want to raise one point that I have learned about from General Ryan and others in the Air Force that I do not have an answer to. But I want to suggest that there is a great, big problem waiting out there if the U.S. Air Force is expected to meet its budget targets in some of the ways suggested.

One is to contract out various activities in the Air Force. Unless I am mistaken, that means that through contracting out, the Air Force intends to have 29,000 fewer jobs in the civilian part of the Air Force under this budget and 23,000 jobs will be military positions. If you add those up, that is a 52,000 job reduction expected in ultimate force structure, and they are to be paid for by \$5 billion that are to be saved from a formula approach to contracting out.

The formula says that when we do these contracting outs, here they all are, we will save 25 percent on average on every one; that is, over what it would cost doing it the normal way.

First, I want to be the first one on record to say I do not believe you can get this job done. I don't believe you can contract out and privatize that much to achieve that kind of saving.

I base this on anecdotal information, but I have been around when there were just a few jobs being canceled because of contracting out and privatization. By the time you are finished with it working its way through the Congress and through the disputes between the unions that currently have membership that are being reduced, it takes a lot longer than planned and, frequently, we never get it done even though it is supposed to get done.

So I guess I add another problem that you have, Mr. Chairman, in trying to get this defense budget put together. But I think that

is a very, very serious one and it will cost much more than planned. And the Air Force will not be able to reduce the manpower as recommended.

I would be glad if either or both of you wants to comment. I have only given you my version, and if I have misstated anything, then, clearly, I would like for you to correct any misstatements.

Mr. PETERS. Senator, I think the numbers are generally in the right order except that the savings we are looking to for this is only about out \$1 billion. We have booked \$1.1 billion through the FYDP at this point. There may be more there. Of the savings we have booked, actually some of the other savings that may be in that number you are talking about are the savings from working the depot issues in public/private competitions, where we have had a 29-percent cost saving on the only one that actually has been awarded yet.

For the other two, the RFP's I hope are coming out in the next 30 days, with an effort to try to award them toward the end of this fiscal year.

Senator DOMENICI. Mr. Secretary, let me say that my number is entitled to a clarification. My \$4.8 billion is for 5 years, or about \$1 billion a year.

Mr. PETERS. It is \$1.8 billion total over the FYDP which is the number we have been working with, of which \$700 million is depots.

Senator DOMENICI. We will confirm the number. In any event, it is a rather large number. The \$4.8 billion is from your own budget briefing.

Could I just talk about some parochial issues with you very quickly, General and Mr. Secretary?

Senator STEVENS. If you would wait for just one second, I have to step out for just a few minutes.

When you have finished, the next person is Senator Shelby. But I will be back.

AIR FORCE SPACE LABORATORY

Senator DOMENICI [presiding]. Thank you, Mr. Chairman. I will be finished very shortly.

When the airborne laser was being discussed by two different Senators, I did not chime in. I know quite a bit about it. It was invented and dreamed up in Albuquerque, NM, at Kirtland Air Force Base and the military space lab there. It was researched there, it was built there, and it was tested there. I have been there and talked to everybody there. Frankly, the GAO frequently makes mistakes and I believe they have just made a mistake in their report. They did not fully listen to both sides of the debate.

They took one little piece of history and documented it for the public as if this program was destined not to work scientifically and physically. That is not the case. In fact, it is now touted by the military as the only significant laser that may be in our arsenal in the not too distant future with reference to space.

If I have misstated anything, I would ask you to correct that.

General RYAN. No, sir; I don't think that is parochial, either. I think you are dead-on and those are facts.

Senator DOMENICI. With reference to the laboratory, the Air Force laboratory, the space laboratory that used to be called Phillips, in Albuquerque, am I correct that, even though you have restructured the way you were going to manage this, that which will be done, that is, the mission of the former Phillips Laboratory, will remain the same, that it will be the major space research laboratory for the U.S. Air Force?

General RYAN. Yes, sir.

Mr. PETERS. Yes, sir.

Senator DOMENICI. We have been told that and I assume that is still the case.

Mr. PETERS. Yes, sir.

General RYAN. Yes, sir; I know of no plans to change that.

F-117

Senator DOMENICI. The F-117 is at Holloman Air Force Base. I am concerned that there will remain enough capability to adequately service and maintain the F-117. With the reduction in military personnel, is that in any way going to affect the operation and maintenance of the F-117?

General RYAN. I don't think so, sir. We have protected as best we can in our budgets, even with the outsourcing and privatizing that we talked about, the core capability to be able to generate our forces and execute them. So I do not anticipate a problem with the F-117.

ENVIRONMENTAL IMPACT STATEMENT [EIS]

Senator DOMENICI. Holloman Air Force Base is fortunate to be the recipient of some German training missions. I understand that an EIS, an environmental impact statement, is being completed with reference to an additional group of German training missions.

Do you foresee any problems with this EIS and the implementation of that plan?

Mr. PETERS. Senator, I do not. That is a high priority for us at this point and I am not aware of any problems that exist there. It is also a very high priority for the German Government, to get that to happen because they are losing some of their training space in Europe and we need to get them on to Holloman to get them the training that they need. So that is a very high priority for us and we are working that as fast as we can.

Senator DOMENICI. Do I gather that, Mr. Secretary, in general you continue to be committed to working with the local community with reference to the various concerns that are had about where you will fly these planes and where their missions will be?

Mr. PETERS. Yes, sir. Absolutely.

PARTNERING

Senator DOMENICI. Last year, we had a shared facility that was directed to be built in the city of Alamogordo as an experiment. They are planning a brand new hospital. The Air Force was thinking of adding to theirs. They have put together a plan wherein both would save and both would have what they need.

We are supposed to get a final from the Air Force on their evaluation before they move forward. When might we expect that?

General RYAN. I would like to answer that one for the record to give you the exact date. But I can tell you that we are very, very positive about that partnering with Alamogordo and Holloman Air Force Base. We think that is a wonderful idea. We think it is good for the city, we think it is good for our folks. I will give you the exact date of when we will have that report back to you, sir, in an answer for the record.

[The information follows:]

SHARED FACILITY

The Air Force will submit a report to Congress, through the Office of the Assistant Secretary of Defense (Health Affairs), containing its analysis and recommendations regarding this sharing proposal no later than May 31, 1998.

Senator DOMENICI. The other air base, Cannon Air Force Base, has had some reductions because of the acceleration of phasing out some of the F-16's—no—

General RYAN. The F-111's, sir.

Senator DOMENICI [continuing]. The EF-111's. We were going to have some and they are going to be leaving earlier.

Some of that vacuum is supposed to be filled by some training missions from the Republic of Singapore. Might I ask, when might that agreement be finalized? Or would you like to state that for the record?

General RYAN. I will give you the exact date in an answer for the record, sir. But right now, we foresee no problem with that agreement with the Republic of Singapore. We think that is a go, subject to an environmental assessment that we think will show much less of a problem using F-16's rather than F-111's at the numbers we are talking about.

Senator DOMENICI. It is not a very large number and it is a different airplane

General RYAN. A different airplane.

[The information follows:]

CANNON AIR FORCE BASE

Pending the outcome of the environmental assessment, we anticipate a finalized agreement with Singapore by April 1999. Singapore plans to begin moving some of its aircraft and personnel into Cannon AFB between October and December of 1998 with the full training complement beginning in December 1999.

BOMBER TRAINING INITIATIVES

Senator DOMENICI. You are going through a realistic bomber training initiative, where you are looking for some places to fly bombers at low levels. You know that New Mexico is not averse to having many of these kinds of air space utilizations by the Air Force taking place in our State. But we are concerned that way up in northern New Mexico, in the communities of Taos and Santa Fe, that they are concerned about whether this will work up there.

I am not convinced that it is an appropriate location, but I leave that up to the evaluations and studies.

Will you continue your commitment to hold additional meetings to provide interested residents with information and answers in that regard?

Mr. PETERS. Yes, Senator, we will. Senator Bingaman and I met about this several weeks ago and at that point he asked that we extend some deadlines. That has been done. We will continue to try to work with you and the communities in New Mexico to make sure they feel they have a full opportunity to comment.

Senator DOMENICI. I have the cumulative competitive resource savings that we discussed earlier. I will hand it to you. It's your own briefing. It says for 6 years it is \$4.8 billion. Maybe you can tell us if this is wrong now, and you have reduced your savings projections.

Mr. PETERS. If I may, I would give you that for the record. We will do that.

Senator DOMENICI. Please.

Mr. PETERS. I think those are not the numbers we have been working with.

Senator DOMENICI. Something may be added to it.

[The information follows:]

O&P SAVINGS

In our fiscal year 1999 PB, the Air Force is projecting \$1.8 billion cumulative savings from fiscal year 1998 through fiscal year 2003 from competitions and re-engineering efforts. The cumulative savings by year are:

Fiscal year:	
1998	\$79,500,000
1999	258,800,000
2000	494,800,000
2001	854,700,000
2002	1,300,000,000
2003	1,800,000,000

INFORMATION TECHNOLOGY SOFTWARE CAPABILITY

Senator DOMENICI. I think Senator Shelby is next.

Senator SHELBY. Thank you. I will try to be brief, General.

Information technology, you are familiar with the standard systems group and other organizations that comprise the Electronics Systems Center [ESC]. We are concerned about the software capability and what is in-house and where is it going and everything. Do you believe it is necessary, General, for the Air Force to retain an in-house software capability to develop and to support software for military essential activities like standard systems?

General RYAN. I wish I could give you a "yes" or a "no" to that, Senator.

I have asked our Director of Communications and Information, our chief communicator, to go back and tell me whether in this day and age, the assumption that we can get it cheaper on the outside than building it on the inside still pertains. If you look at what is going on in the business world today, you see a lack of capability out there. One in every 20 jobs, that require computer skills, is going vacant. There are 20,000 jobs in the Washington, DC, area that are unfilled by competent computer-literate folks.

I have a son who is a captain in the Air Force who is a computer officer. I get first-hand knowledge of those kinds of capabilities and the Air Force's thrust in that area.

Our real issue is can we build those kind of people in the Air Force and retain them vice—

Senator SHELBY. Absolutely, and cost has to be a factor, too.

General RYAN. Cost has to be a factor, vice contracting out that capability. Clearly, we can contract out that capability.

Senator SHELBY. But at what cost?

General RYAN. But is it cheaper to do it? That is what I have asked them to tell us.

Senator SHELBY. We have some information, and I don't know if you have it, that it would cost more to contract out. I don't know if that is right.

General RYAN. I don't know, either, sir, and that is what we are trying to pursue. Before we make any decisions about this business, we must go through that analysis.

Senator SHELBY. Absolutely.

RESTRUCTURING OF ELECTRONIC SYSTEMS CENTER

I am also aware, General, that General Kadish has proposed to reorganize the Electronic Systems Center in the decision to restructure the program management authority from a standard systems group to ESC.

What consideration was given to the contractor support relationship there? If it was assumed that the reorganization would not impact contractors, can you assure us that the program execution will not be hampered by the proposed restructuring?

I know why you restructure or try to. But is this a good thing?

General RYAN. I would like to request to take that one for the record and get back to you, sir.

Senator SHELBY. All right.

[The information follows:]

IN-HOUSE SOFTWARE CAPABILITY

In response to your questions concerning the development of software, the Air Force views software development and maintenance as a commercial-like activity that is neither inherently governmental nor military essential. Today we have several software activities, including the Standard Systems Group (SSG) at Maxwell Air Force Base, Alabama, and the Materiel Systems Group (MSG) at Wright-Patterson Air Force Base, Ohio, that provide software support for our standard base and depot systems. They use a mix of active duty, government civilians and contractors to accomplish their mission.

Just as we do with other commercial-like activities, we are reviewing the SSG and MSG to ensure these activities are providing the best value to the taxpayer. The decision process used to increase effectiveness and gain efficiencies in software development and maintenance will consider a full range of options, to include outsourcing, privatization and reengineering.

Labor is clearly the single biggest cost driver for software whether it's done in-house or by contractor. When comparing in-house and commercial software programmer labor costs, we must go beyond a simple comparison of fully-burdened labor rates and weigh other factors, such as training, retention, and productivity. We are looking very carefully at the whole picture to include the training and experience required to produce reliable, efficient, effective software. For example, if a first-term programmer decides not to reenlist, a substantial training investment has been made with marginal near-term and no far-term return. If a second-term airman does not reenlist, we have made an even greater investment with, again, only a marginal return. We are concerned that despite offering selective reenlistment bonuses, the reenlistment rate for first-term airman programmers continues to decline. So far this year, it stands at 32 percent and for the second year in a row it is below our goal of 55 percent. Reenlistment is even bleaker for second-term airman programmers—a 28 percent reenlistment rate so far this year, and for the fifth consecutive year we are below our goal of 75 percent.

Another factor in the economic equation is the expected software life cycle. Outsourcing software maintenance for systems we will deactivate in the near future

may not be cost effective due to contractor "spin-up" costs associated with gaining adequate experience levels. In cases where we are replacing a system, it may make more sense to continue in-house software maintenance for the legacy system and procure software development and maintenance for new systems.

In summary, we will look at all the cost components of our organic software capability, to include personnel, infrastructure, equipment and supplies. While we are building the cost models to help us in the decision process, we have made no decisions regarding the future of our software activities.

In response to your questions concerning the restructure of the Electronic System Center (ESC), the Standard Systems Group (SSG) is a subordinate group under the ESC organization. Program management authority has always been the responsibility of the ESC Commander. The restructure at ESC was a prudent action to take in response to the revolutionary changes in the information technology environment. With regard to the expressed concern about program execution, you have my assurance that one of the restructure's key objectives is to strengthen the emphasis on program execution. The restructure carefully considered the relationships among the military users, government acquisition offices, and the contractors. The government and contractor support staffs were pooled under the SSG Executive Director to better balance workload assignments and standardize processes throughout SSG. Program execution has been enhanced as a result of the restructure.

JOINT AIR-TO-SURFACE STANDOFF MISSILE [JASSM]

Senator SHELBY. The joint air-to-surface standoff missile, or JASSM, you are very familiar with. What is the status of the program with respect to analysis of alternatives?

General RYAN. The analysis of alternatives is currently being briefed up through the OSD and service chain. It is a process that I think we will be through by the end of this month.

In any case, we are looking toward a decision on the JASSM capability. As you know, the alternatives were the SLAMMER and the JASSM variation.

We should know the answer to that here this month.

Senator SHELBY. Do you have any idea if the Navy will stay with the program?

General RYAN. I won't answer for the Navy, but I can tell you from what I know of the analysis that, clearly, I think JASSM is a very, very good system and it shows lots of potential for the future. But I cannot speak for the Navy in that, sir.

Senator SHELBY. Mr. Secretary.

Mr. PETERS. I am sorry, but I can't, either, on that. I know that our competition we think is going to be very good. We are getting very good prices. But we will have to wait and see how the analysis of alternatives comes out.

Senator SHELBY. It has been a good weapon, hasn't it?

General RYAN. Yes, sir.

Mr. PETERS. Yes.

Senator SHELBY. I just want briefly to hit on national missile defense, if I could.

The Air Force officials, I understand, General, have repeatedly argued that the Minuteman option complies with the ABM Treaty. But they have never stated how it would be made treaty compliant.

Can you tell us how this can be done? If you don't want to address that now, you can get it back to me.

General RYAN. As you know, Senator—and I will clarify it for the record—we have offered a Minuteman solution to a small raid capability that appeared to us to be treaty compliant. I know that the study is ongoing right now on what other alternatives there are out there to meet that kind of raid capability and whether Minuteman

is the right missile to be used in that case. That should come to fruition here in the next several months.

[The information follows:]

NATIONAL MISSILE DEFENSE

The Air Force has suggested the use of modified Minuteman missiles to perform the role of ground-based interceptor (GBI) in an NMD system. Before any selection of any NMD GBI, however, the USD(A&T), supported by DOD's Compliance Review Group (CRG) must determine whether a particular design is consistent with U.S. treaty obligations. Unless, and until, the USD(A&T) rules, no definitive answer can be given as to whether Minuteman-based GBI is treaty compliant.

Nevertheless, there are reasonable arguments that we could proceed with Minuteman-based interceptors and maintain good-faith compliance with both the ABM Treaty and START:

- Under the ABM Treaty, Minuteman-based interceptors could have such changes that they could be considered legal ABM components and not illegally upgraded versions of previously existing missiles.
- Under START, the Minuteman-based interceptor could be considered an ICBM used for delivering objects into the upper atmosphere or space, in the same manner as a space-launch vehicle or booster for communications payloads. Each Minuteman-based interceptor would count towards START central warhead limits, and be subject to the applicable START provisions.
- Although Minuteman-based interceptors would be subject to both the ABM Treaty and START simultaneously, the two treaties are separate legal entities. Compliance with each must be assessed in light of the specific applicable treaty language.

Senator SHELBY. Should you not get a determination from the compliance review group before you move way down the road on this? Mr. Secretary, do you want to address that?

Mr. PETERS. Senator, if I may answer that, in my last life as the Deputy General Counsel of DOD, we were looking at this. The compliance review group is working on this. But they needed to have a relatively clear architecture before they started to work because it is a very highly fact-intensive work. But that is ongoing.

I am not sure what the date for completion is. It is a complicated issue.

Senator SHELBY. Yes, very complicated.

Do you want to get back to me on it and explain what you plan to do, if you plan to do anything, and how?

Mr. PETERS. Yes, sir.

[The information follows:]

TREATY COMPLIANCE

The Air Force strongly supports the National Missile Defense (NMD) Joint Program Office process identifying the best system from among various options—including the Minuteman NMD option. As part of this process, the government will select the booster within 90 days after contract award. The LSI contract was awarded on April 30, 1998. On or about July 30, 1998, the booster part of the NMD architecture will become known. It is only after this point that the Compliance Review Group would definitively rule on treaty compliance of the booster selected, whether Minuteman or an alternative design.

EVOLVED EXPENDABLE LAUNCH VEHICLE [EELV]

Senator SHELBY. What about the evolved expendable launch vehicle? General, are you familiar with that?

General RYAN. Yes, sir.

Senator SHELBY. I understand the Air Force has announced a new acquisition strategy for this program that appears to leverage

the commercial market for space launch and will meet the cost-saving requirements and national security objectives.

Explain your new strategy and how it benefits the military, industry, and, of course, the taxpayers, which is very important.

General RYAN. Sir, space is the new frontier. We have seen on the commercial side today an increase in the use of space to the point where the military, even the Government, will be the minority member out there as we move into this next century. The amount of money that is going to be spent on space support and orbital capability is kind of mind boggling.

As we went into the strategy for EELV, we were thinking about down-selecting to one or the other. It appears that in the commercial market out there, they will be planning for both.

Senator SHELBY. Good opportunities, yes?

General RYAN. Good opportunities, and this is a partnering between industry and the Air Force that will benefit both.

We think that the EELV will get the cost per pound launch to orbit significantly down. If we are going to become an aerospace Air Force, if we are going to become an aerospace Nation, we have to get the cost per pound to orbit down significantly, and this is a really good step on the way to that.

Senator SHELBY. It is a good opportunity and you can, hopefully, do it.

General RYAN. Yes, sir.

Senator SHELBY. Are you familiar with what Boeing has done in my home State?

General RYAN. Yes, sir.

Senator SHELBY. Mr. Secretary, do you have a comment?

Mr. PETERS. No; I think this is really the way we ought to be going.

We are looking, in the Air Force, at trying to leverage our dollars both for acquisition and for science and technology research with industry and with other Government agencies. I think it is clear to us that we need to partner with the commercial world in many ways that we are not doing now because there will be a huge demand in that area. We still provide a lot of the lift services and launch services and we need to look at how we are doing that.

Just earlier this month we signed a deal with the National Reconnaissance Office [NRO] and with the Defense Advanced Research Project Agency [DARPA] to do a mobile tracking satellite system in space. Each one of us is picking up about one-third of the cost of that. We also are contributing an EELV to get it up in space.

We have asked our Scientific Advisory Board [SAB], our science advisors, to give us a plan that we call doable space. This is to look at what industry and Government need to do to define critical technologies and to give us some ideas about how we could partner with industry to achieve those technologies by using joint funds. I think that is clearly the way we are going to go and I think EELV is a good example of the many benefits that can be obtained by getting private industry to participate at the same time that we are participating in the programs.

Senator SHELBY. Basically you are looking to the market for some help?

Mr. PETERS. Yes, absolutely.
General RYAN. Yes, sir.
Senator SHELBY. Thank you.
Thank you, Mr. Chairman.
Senator STEVENS [presiding]. Yes, sir.
Senator BUMPERS.

MODERNIZATION OF C-130'S

Senator BUMPERS. Thank you, Mr. Chairman.

Mr. Secretary and General Ryan, let me ask you both this question.

In your posture statement, on page 35 you state that your current plan is to modernize more than 350 existing C-130's. Let me just say at the outset that I strongly agree with that. I notice that you are only asking for one C-130J. I don't want to get into the C-130J fight. I am sure it is a fine airplane, but it costs \$64 million.

My guess is—and I am not privy to what precisely it would cost to do the modernization of these C-130's—my guess is that you could probably modernize about eight C-130's for what it would cost to buy one new C-130J.

The modernization plan could take those planes' usefulness up to the year 2030 or so. That seems to me like one of the best ways in the tight budgetary constraints of DOD and the Air Force, and particularly this morning, to do this. It seems like an immensely wise thing to do.

Incidentally, I assume that that is the plan now, since it is in the posture statement.

Mr. PETERS. Senator, let me address that, if I may.

We have asked our air mobility commanders to give us a better idea of how to structure this program. As you know, we have had C-130 modernization money in the budget for some time. General Kross has given us the preliminary view that we would probably do better by spending that money in a different way to create something he has called the C-130X, which is a glass cockpit, modernized C-130, rather than doing it in drabs as these things go through program maintenance.

He is coming in his year 2000 program objective memorandum [POM] with a program that will do that, to let us look at that.

Senator BUMPERS. That is fine, too, Mr. Secretary. I am for that, too.

Mr. PETERS. I think we are definitely going in that direction.

With respect to the J's, we have done two things in the 1999 budget. We have added one to round out the number that we have been given. Second, we have added all the spare parts and support equipment that are necessary to run all of the other ones that have been added by Congress. So our hope is that, at the end of 1999, we would have a useful fleet of J's in the budget and that we would also have a roadmap for what to do with our older C-130's, some of which will obviously be retired because it will not be economical to upgrade them. But many of them should be upgraded to a common cockpit.

Senator BUMPERS. General Ryan, would you like to add anything to that?

General RYAN. No; it will be a balance between J's and what we call X, bringing the old ones, eight different models that we have, up to a common configuration.

AIR MOBILITY COMMAND UPGRADES

Senator BUMPERS. We are talking about getting the biggest bang for our buck. That is the reason I raised the question. I don't want to get into the fight if you have the money and you can see fit to do that. But I think it would be foolish to limit ourselves to a \$64 million plane when you can get the same capability, essentially, for probably around \$8 million with the existing planes we have. It would be foolish not to do that.

Incidentally, I think Air Mobility Command now wants to buy more C-17's, isn't that correct?

General RYAN. The Commander of Transportation Command has said that he needs another 15 to fill out the special operations capability that he is on tap for.

Senator BUMPERS. Well, I would not fight about that. It is a good airplane. I always thought it was too expensive and I would have done something different. But now that we have it and we are building it, why I don't object to that.

On a parochial issue, regarding the National Guard's 188th Fighter Wing, in Fort Smith, AR. Since 1994, I have been trying to get those F-16's updated or replaced. We know that we are not buying any more, even though Lockheed wants to sell us some more.

I think those aircraft should undergo what Lockheed calls a mid-life update program.

Incidentally, I would like to get in on that myself, a midlife update. [Laughter]

GUARD AND RESERVE UPGRADES

Tom Harkin, to whom I would defer on this because of his own expertise, being a fighter pilot and so on—the other day we were told that only 29 percent of our pilots were reupping.

General Ryan, we talked this morning about the major effort you make to get those people in the Reserves who do not reup. The point I want to make is this.

If you have an F-16 pilot who is not reupping and you say to him why don't you join the 188th Fighter Wing here in Fort Smith, and he is looking at a plane that is really outdated compared to the one he has been flying—well, I won't say it is outdated, but it sure has less capability than the one he has been flying—would you not consider that a deterrent to him on whether or not to enlist in the Guard?

General RYAN. I believe that we have done a very, very good job in providing the Guard with modern capability. Our A models that are still in the Guard are well maintained and are very, very good. They lack some of the state-of-the-art things that we have in some of our other aircraft, like precision munitions, et cetera.

So yes, we were looking at how to upgrade and divest ourselves of all of our F-16A and B models in this last budget that we went through. We will continue to try to upgrade those kinds of capabilities.

One of the problems we ran into was this idea that we could not shift a wing out of the active component into the Guard and get the tumble-down effect of the better capability because it would download bases. So we kind of got trapped a little bit in not being able to get those forces, particularly the ones that you are talking about, out of the inventory.

We will continue to look at it, sir, and in our next budget we will address the modernization of those less capable aircraft, for instance, the F-15A and the F-16A models.

Senator BUMPERS. I hope you will, General. This is my last year. This will be the fourth year, at least, that I have worked on trying to get a modernization program for new planes in that fighter wing in Fort Smith. It is a fine organization.

The Europeans are doing this, are they not? Are they not doing the midlife update on their F-16's?

General RYAN. They are doing the midlife upgrade. Yes, sir.

Senator BUMPERS. There is one other point on that. I asked General Hawley about this and he wrote me back a strange letter that I do not understand. Perhaps you can explain it to me.

He says that plans to update the 188th have been scrapped because of discussions between the administration and the Congress on BRAC legislation. I didn't understand that. What is the relevance of the BRAC legislation on upgrading the F-16's?

General RYAN. When we had built our budget for this year, the 1999 budget, part of the QDR, the "Quadrennial Defense Review," said to move a wing from the active component into the Guard and that would allow us to modernize some of these aircraft. We were unable to do that because of the resistance that the administration felt would be there in downloading bases without a BRAC legislation. I think that is where he is coming from.

F-22'S

Senator BUMPERS. We are now talking about buying 339 F-22's, is that correct?

General RYAN. That's correct, sir.

Senator BUMPERS. We are looking now at a 5-month delay in testing and delivery of the first five F-22's because, apparently, of this new high tech casting of titanium parts, as opposed to aluminum.

You know, and I make no bones about it, that I have been an ardent, adamant, long-time opponent of the F-22. I am about ready to concede that I have lost that. So I got a spending cap put on last year's authorization bill. That was the Armed Services Committee and Senator Levin and Senator Warner agreed to it.

What is this 5-month delay going to do to the spending cap?

General RYAN. We see no impact on the spending cap. The delay is 5 months.

Senator BUMPERS. You think it will still come in under the cap that we had in the bill last year?

General RYAN. Yes, sir; we have the agreement of all of the manufacturers to be able to do that.

The 5-month delay has to do with the third aircraft that is going to come off the line. Remembering that we are in the EMD phase, engineering and manufacturing, this was one of the things that we

have an EMD phase for, to determine the viability of the manufacturing techniques. We have gone back and redone the technique of not only how to do the weld but to inspect the welds to make sure they are secure.

That has put us behind, on that aircraft, 5 months. We have a catchup plan that, by the time we get to the seventh airplane, we will be caught up.

Senator BUMPERS. And when is that?

General RYAN. I can give you a date on that, sir. I will give it to you for the record.

[The information follows:]

F-22

The F-22 Initial Operational Test and Evaluation (IOT&E) start (August 2002) and Milestone III (July 2003) have not changed due to the recent manufacturing delays. The Air Force has replanned the F-22 flight test work to accommodate a 2 week to 5 month delay to deliver aircraft from manufacturing to flight test. These delays affect test aircraft 4003 (5.3 months) through aircraft 4006 (2 weeks). The schedule for aircraft 4007 is not affected by the manufacturing issues, and it will meet the original planned first flight date in September 2000.

General RYAN. But our ninth—we have nine airplanes in that EMD phase. Then we start into the production airplanes, the production decision being made this year for the first two.

Senator BUMPERS. What is the initial phase—five for the first year of production, five F-22's? Is that in 1999?

General RYAN. There are two in the first lot for this year.

Senator BUMPERS. That is for 1998?

General RYAN. That's for 1999.

Senator BUMPERS. For 1999? You have two in the budget for next year?

General RYAN. Yes, sir.

Senator BUMPERS. For year 2000, you have five?

General RYAN. There are six, and then I will give you the ramp.

Senator BUMPERS. You can supply that for the record, if you will.

General RYAN. Yes, sir.

[The information follows:]

F-22 Production Quantities

	<i>Quantity</i>
Fiscal year:	
1999	2
2000	6
2001	10
2002	16
2003	24
2004-11	1 281
Total	339

¹ Maximum production rate is 36 aircraft per year.

BOMBER STATUS

Senator BUMPERS. On bombers, let me ask you this.

How many B-1's do we have left? We lost another one the other day.

General RYAN. Right. We are at 92, I think, total in the active inventory.

Senator BUMPERS. Is the B-1 now purely for conventional use?

General RYAN. Yes, sir; it has been deemed that under START II negotiations, that it would be so equipped and that it would not be equipped to deliver nuclear weapons.

Senator BUMPERS. How many B-52's do we have in the Middle East right now?

General RYAN. We have, on the ramp at Diego Garcia, 14.

Senator BUMPERS. Fourteen?

General RYAN. And we have three B-1's.

Senator BUMPERS. Three B-1's?

General RYAN. Yes, sir.

Senator BUMPERS. I take it they are not there just for show. We would use those in the event of an attack against Iraq?

General RYAN. Absolutely.

Senator BUMPERS. How many B-52's do we have left?

General RYAN. B-52's?

Senator BUMPERS. Yes—in the Air Force. Is it 150?

General RYAN. Right now, we have 94.

Senator BUMPERS. One hundred seventy-four?

General RYAN. Ninety-four total B-52's.

Senator BUMPERS. What is the longest life expectancy of those planes?

General RYAN. They go out to 2030.

Senator BUMPERS. OK. Back to C-130's: I want to be sure that the record is clear on this.

If we go through this modernization of 350 C-130's, which, according to your posture statement is your present plan, most of those planes would be viable until the year 2030-40, is that correct?

Mr. PETERS. That is an approximate number, yes.

Senator BUMPERS. I want to close my questioning, Mr. Chairman, by again reiterating my strong support for that idea. As I say, I am not trying to stop the production of the C-130J's. But I think the C-130X makes a lot more sense. I think the modernization of that fleet makes a lot more sense.

You know what your budget constraints are. In my opinion, you are just getting a lot more there.

Now I have a parochial interest. I have Little Rock Air Force Base which is the major C-130 training base in the United States. I want it to stay that way, of course.

Incidentally, you just put a new engine facility down there the other day, and I thank you for that. But I like to think that I am looking at this above and beyond my parochial interests. I would think that you would have that same interest given the budget constraints in which you are operating.

Thank you, Mr. Chairman.

COLLISION AVOIDANCE SYSTEM

Senator STEVENS. Thank you, gentlemen.

I do have just two short questions. I am sure you are aware of the CBS "60 Minutes" show that highlighted the C-141 midair collision with the German aircraft off Africa. Two years ago, after the crash of Secretary Brown's plane, we put money into the bill, \$32.5 million, for aviation and safety equipment, which included the enhanced ground proximity warning system with the digital terrain

data base to address controlled flight into terrain [CFIT] and the traffic alert and collision avoidance system [TCAS]. We have also had predictive windshear, radar, and cockpit voice recorders and flight data recorders.

I want to ask about TCAS. I was surprised to find that TCAS is not on the C-17?

Mr. PETERS. It is not currently on the C-17, Senator, but there are plans to reengineer it onto the C-17.

Senator STEVENS. I thought we put up enough money and we got the plan to satisfy all the requirements for DOD passenger carrying aircraft?

Mr. PETERS. The C-17 can carry passengers. But the emphasis is in putting it on our fleet that only carries passengers first, such as the C-20's and the aircraft the 89th Wing flies and others. Those are at the head of the line, followed by the aircraft that carry cargo and passengers.

Senator STEVENS. I am told that the private commercial airline industry has voluntarily equipped its entire fleet with the enhanced ground proximity warning system and that we are lagging behind that. I think, particularly on the planes that are going to be used for the deployment of our forces, the C-17 is, basically, for deployment of our forces abroad, as I understand it, beyond being a cargo plane.

I want to ask you one more question. Why is there not a plan—I thought we funded a plan to assure that all passenger aircraft of the Air Force, particularly the large troop carrier aircraft, would have the latest safety equipment. Now if you need money, I would like to know that for the record.

What would it cost to assure that is the case? I cannot believe we should not have that equipment on the C-17.

Mr. PETERS. Senator, right now, at the current schedule I believe our passenger carrying aircraft will all have TCAS and these other safety enhancements by around the year 2000, and the TCAS will be going on all of our aircraft by 2005.

Senator STEVENS. What about the C-17's? You can get more people on C-17's than any other airplane when we carry them and when our troops are going to be deployed overseas. They are the ones, I would think, that would need that basic system.

Mr. PETERS. Let us get back to you for the record with the exact date that it is going on the assembly line. It is in development and there is a date on which it gets put on the assembly line. Then it gets retrofitted back onto the C-17's. I don't have that date with me today. But let us get back to you for the record on that.

[The information follows:]

SAFETY ENHANCEMENTS

The Air Force will have the Traffic Alert and Collision Avoidance System (TCAS) installed on C-17 production aircraft (P-71) beginning in fiscal year 2001; retrofits for the first 70 aircraft will be complete by fiscal year 2002. Therefore, all C-17's that the Air Force possesses as of fiscal year 2002, will be equipped with TCAS; new C-17's received after that time will be delivered with TCAS already installed.

Senator STEVENS. My mind slips back to the rescue mission to take people out of Iran. Had there been a TCAS on that plane, we would not have had to abort that mission.

The real problem about that is, if we deploy to Iraq or anywhere out there, we must be using C-17's almost daily in this deployment. Aren't we?

General RYAN. Oh, yes, sir.

Mr. PETERS. Yes, sir.

Senator STEVENS. Isn't that a passenger aircraft, then, General?

General RYAN. It is both a passenger and air cargo. Yes, sir. But our primary passenger aircraft are first in our prioritization scheme.

C-17 SUPPORT

Senator STEVENS. I would hope that the ones that are carrying the largest number of troops would be moved up in that schedule if it is at all possible.

Again, if you need money, we ought to be able to find money for that.

Last, on the C-17, let me leave you with this comment and you can make some comments for the record if you like.

As I understand it, the C-17's are going to be at McCord, they are going to be at Altus, in Omaha, and in Charleston. That is where they will be based.

If they are the primary deployment mechanism of our combat forces, that means that Fort Lewis and Fort Bragg, in particular, will be the enhanced area for troops to be deployed with the C-17.

If you also then have megalopolis sort of bases now for the fighter aircraft, it looks like we are heading toward a situation where we will have very, very few bases for the Air Force. Is that really the plan?

I should think we learned a lesson from Pearl Harbor about putting all of our assets in one place. If we are going to have the Army in Fort Lewis and McCord built up, if we are going to have Charleston built up for C-17's and Fort Bragg, we, obviously, are going to lose a lot of, really, the safety in deployments at several other locations in the country.

I am hearing you this morning saying you would rather have enormous bases now for the fighter aircraft and for the other aircraft, just as we are going to have for the C-17's.

That plan is not really reflected in this posture statement.

Mr. PETERS. No; at this point, Senator, it is not. This is in the works. We are trying to work this out.

I think enormous is a stretch because there are other considerations such as proximity to air space and, as you suggest, distributing troops in multiple bases.

But what we need to do is—we need to make sure that we have enough people on our primary bases from which we deploy so that when people are deployed, the people who are left at home do not have to work 12 hour shifts and do not have many of the same problems they have when they deploy.

What we need to do to lift our retention, we think, is to try to make sure that, when people are at home base, that they have more of a regular workweek, a 40-hour workweek, a time to be with their families, and a time to decompress from the stresses of deployment.

So what we are looking at is a basing scheme that will facilitate that.

Our sense is it means that we will have a number of larger bases. But there are other alternatives, such as we have done with the security forces, where we have a core security forces group and people fall in with them.

So we are doing a planning effort on that this year, to try to figure out exactly what the implications of that are.

We don't have an answer to that yet. This is really a response to the fact that we see that money alone is not the answer for retaining our key people. We need to provide them with quality of life when they are at home training that is more normal and allows them to do the things which all of us want to do during the work-weeks when we are at home.

That is what we are trying to look at, trying to figure out how to balance our forces to get there.

Senator STEVENS. We would be interested in that.

I see for the three locations for the C-17—I don't know what the plan is to deploy forces from California, Arizona, or Texas. Are you going to fly the C-17's south to go back north again? Similarly, if you look at the forces deployed in New England, the C-17's are down in Charleston. I am seeing the Army start to consolidate its deployment around the bases where they know the C-17's will be. That is what I am saying. I am not sure that has been thought through yet.

I would like to have your comments later on that.

[The information follows:]

SUPERBASES

Consolidation of similar forces and complementary missions at the same base enables the Air Force to realize efficiencies—both operational and financial—as we execute our global responsibilities.

We believe that by consolidating our forces on fewer bases, we can meet the challenges of today's expeditionary Air Force in two important respects. First, this consolidation enhances our versatility to operate during deployments. Second, it enables us to "manage" the workload levied on those personnel not deployed—relieving them of "routine" 12-hour workdays.

Finally, force consolidations enable us to reduce our infrastructure saving valuable resources—as we match our basing structure with our post Cold War reduced force structure.

With respect to C-17 basing, proper force consolidation is a complex issue, one that requires extremely careful analysis. As our basing plans mature, we will consult with the Congress at the appropriate time.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. We will be submitting additional questions from various Senators to the Department for your response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO SECRETARY F. WHITTEN PETERS

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

F-22

Question. Last year the Air Force insisted that it could deliver 438 F-22's for \$48 billion. Can you explain why 339 F-22's will now cost \$43.4 billion?

Answer. The Quadrennial Defense Review (QDR) in May 1997 reduced the production quantity from 438 to 339, reduced the Low Rate Initial Production quantity from 70 to 58, and reduced the maximum production rate from 48 per year to 36 per year. This reduction in aircraft quantity and efficient production rates causes the F-22 unit costs to increase. The decrease in efficient production results in an increase to contractor overhead, an increase in the cost of materials due to smaller quantity buys, and an increase in subcontractor risk and cost. The combined effects of the QDR changes reduced the production cost from \$48 billion to \$43.4 billion.

Question. As the F-22 begins flight testing and avionics integration, what risk areas are being carefully monitored by the Air Force?

Answer. During flight test the Air Force will monitor mechanical performance (such as landing gear and braking capabilities), structural loads, the flying qualities of the aircraft, and engine capabilities. During avionics integration the Air Force will particularly monitor the radar performance in the flying test bed, the delivery of Communications/Navigation/Identification (CNI) hardware and software, and Mission Software integration. The Mission Software coordinates the sensors, processors, controls, and displays in the aircraft.

In addition to monitoring all technical performance items in flight test and avionics integration, the Air Force is closely monitoring the cost and schedule status of all critical systems and subsystems.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

PRIVATIZATION

Question. How did the Air Force arrive at the number of civilian and military jobs to be eliminated and/or contracted out?

Answer. Through an Air Force initiative called Jump Start, the Air Force reviewed our total work force to determine the positions that could be competed with the private sector. We then removed from consideration any position, civilian or military, that was considered wartime deployable, forward based, military essential or inherently governmental. The remaining positions fell into the Office of Management and Budget category of commercial activity, which is the category of positions the Air Force considers for competition. In addition, we decreased this category of positions for competition consideration to account for rotation base to support overseas and career field sustainment.

Question. Were specific, individual studies performed to analyze the savings and appropriateness of activities to compete? Or, was a goal imposed "from the top?"

Answer. A goal was not imposed "from the top" regarding activities to consider for competition. Through an Air Force initiative called Jump Start, the Air Force, in coordination with the major commands, reviewed the total work force to determine if a function was a commercial activity that could be competed with the private sector. We then removed from consideration any position, civilian or military, that was considered wartime deployable, forward based, military essential or inherently governmental. The remaining positions fell into the Office of Management and Budget category of commercial activity which is the category of positions the Air Force considers for competition. In addition, we decreased this category of positions for competition consideration to account for rotation base to support overseas and career field sustainment.

Question. How did the Air Force determine that contracting out saves 25 percent? Why do the Army and Navy assume different savings? Please provide copies of the analysis you performed to come to the conclusion that 25 percent was the right number.

Answer. The Air Force does not presume that our A-76 cost comparisons will result in a contracting decision since historical data indicate 40 percent of the cost comparisons are retained in-house. The 25 percent savings is calculated based on our historical cost comparison data that are maintained in a data base called the Commercial Activities Management Information System (CAMIS). CAMIS is a DOD required data base that has been in-place since 1979. Air Force data indicate that since 1979 the average savings the Air Force has achieved in conducting cost com-

parisons is 24 percent regardless of whether we contract the function or retain it in-house under a most efficient organization (MEO). However, savings for cost comparisons over the last 10 years have been 34 percent. Therefore, in projecting our cost comparison savings for the fiscal year 1999 President's Budget, the Air Force used a conservative percentage of 25 percent to ensure we could achieve our savings goal. The Air Force cannot address the Army and Navy's savings. The analysis is a running average and is the actual result of studies extracted from the CAMIS data base which contains over 1,200 A-76 initiatives conducted since 1979.

Question. With fewer military personnel and DOD civilians after all this contracting out, what will be the impact on overseas rotations and "perstempo" problems?

Answer. The Air Force continually analyzes the effects of competition and privatization efforts on both enlisted and officer career fields to identify early on any impact on overseas rotations and perstempo. When analysis reveals a potential impact on overseas rotations or perstempo, that particular skill will be removed from consideration for competition. The Air Force has a formal process to identify its minimum military essential requirements with a key element of this minimum military essential requirement being overseas rotation. This process is ongoing and will continue to be used in the future to ensure mission readiness. The Air Force is committed to competition and privatization, but not at the expense of mission readiness or unacceptable impacts on our people.

Question. How will the Air Force monitor and document the progress in achieving your outsourcing programs and achieving the planned savings? How will these data be confirmed by an outside party?

Answer. The Air Force will monitor and document the progress and savings of cost comparisons and direct conversions through the Commercial Activities Management Information System (CAMIS). CAMIS is a DOD required data base and CAMIS data is available to any interested party at any time.

Question. What actions do you plan if the savings do not materialize as planned? More outsourcing? Cuts in procurement? Force structure? Readiness?

Answer. Air Force has stated that our competition program is aggressive and has risks, (e.g., supplier availability, level of savings). If the Air Force is able to execute our planned competition candidates, we should be able to meet our projected savings. If we find that we cannot achieve the projected savings, we will need to rebalance our modernization and readiness accounts to reflect the reduced savings.

Question. Please list the specific positions, functions, and locations to be competed or outsourced for the state of New Mexico. When will this data be available, if you do not have it now?

Answer. The data is shown below:

Base/function	Announced authoriza- tions	Announced date	Decision date
Cannon AFB: Military Family Housing Maintenance	21	April 1996	February 1998.
Holloman AFB: Military Family Housing Maintenance	66	May 1997	November 1998.
Kirtland AFB:			
PMEL ¹	51	May 1996	August 1997.
Base Supply ²	170	May 1996	November 1997.
Communication Functions	54	April 1997	May 1998.
Base Communications	228	November 1997 ...	October 1998.
Dormitory Management ³	6	February 1997	May 1998.

¹ Tentative Decision for PMEL was In-House; pending completion of the administrative appeal process.

² Tentative decision for Base Supply was Contract; pending completion of the administrative appeal process.

³ Direct conversion to contract.

QUESTIONS SUBMITTED BY SENATOR JUDD GREGG

PARTNERSHIP FOR PEACE

Question. In the past, the Administration has indicated that the Partnership for Peace program will help decrease international military tensions. It further stated intentions to enhance and strengthen the program and to ensure that Russia is included, not excluded. Your statement indicates that "recently, the focus of our cooperative engagement and stability enhancement efforts have been in our Partnership for Peace participation." Has Russia been included in any Air Force Partnership for

Peace efforts in the last several years? If so, what is the Russian reaction to the Partnership for Peace program?

Answer. The most recent effort was last fall when Russia participated in CENTRAZBAT 97, an "in the spirit of Partnership for Peace" exercise in Central Asia which focused on peacekeeping. At the operational level, Russian reactions are positive. Challenges remain in the political sense in so far as many Russians link Partnership for Peace to NATO expansion. Compounding the problem is a lack of Russia's financial resources. We are encouraged by the signing of the Founding Act last May. More dialogue has since taken place and the GOR signed an Individual Partnership Program in January of this year, a very positive indicator for future activities.

Question. Do you think the program decreases possible Russian concerns about NATO expansion? Some specific examples please?

Answer. The results at the operational level are positive where the Russians can see the benefits of cooperation, such as last fall at CENTRAZBAT 97. We expect this benefit to expand as the Russians observe less and participate more with the signing of the Individual Partnership Program in January. Many in Russia see a direct link between Partnership for Peace and NATO expansion. The USG will continue to have a major political challenge convincing Russia that NATO expansion is not a threat. Programs such as Partnership for Peace engage the GOR and help alleviate Russian fears.

SCIENCE AND TECHNOLOGY PROGRAMS

Question. In September and October 1997 there were news reports of a possible U.S. Air Force decision to terminate all atmospheric sciences, electro-optic sensor, and photonics Science and Technology base research starting in October 1988. It was reported that the proposal would possibly force the closure of the Atmospheric Sciences Division and the Electromagnetics and Reliability Directorate at Hanscom AFB, Massachusetts, and result in the elimination of several hundred jobs. Please provide information on the Air Force's near and long term projections for those Science and Technology programs, including specifically any work programmed for Hanscom AFB, Massachusetts?

Answer. The Air Force Research Laboratory (AFRL) has no plans to terminate all atmospheric sciences, electro-optic sensor, and photonics research beginning in October 1998. Air Force Science and Technology (S&T) funding for Hanscom Air Force Base (AFB) activities has been reduced approximately 16 percent in fiscal year 1999 from the fiscal year 1998 President's Budget (equates to an 8 percent reduction from the fiscal year 1998 appropriated level); however, there will be no involuntary reductions in fiscal year 1998 and there are no planned involuntary reductions in fiscal year 1999 for S&T personnel at Hanscom AFB. In addition to any future potential personnel cuts triggered by fiscal year 1999 budget reductions, a reduction of nine military positions has been planned as part of a previously mandated workforce drawdown.

As the Air Force becomes more dependent on space assets, space-related requirements will demand more S&T activities. Some of this work, including the study of space environments and solar effects, will continue to be conducted at Hanscom AFB. We value the contributions of Hanscom AFB over many years and look forward to significant work from Hanscom in the future.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

FUNDING FOR CONTINGENCIES

Question. When must the Air Force receive reasonable assurance that supplemental funding for contingencies will be made available?

Answer. The Air Force must receive reasonable assurance by the end of April/early May that supplemental funding will be received by July 1998. If funding is not received by then, we will be forced to curtail or defer operations, maintenance, training, and sustainment activities in the fourth quarter in order to support the significant cost of responding to the crisis in Southwest Asia, resulting in severe readiness impacts and mission degradation.

Question. When must the Air Force receive the funding in order to preclude adversely affecting readiness?

Answer. The significant costs of continuing our presence in Bosnia and responding to the crisis in Southwest Asia cannot be managed beyond July without an intolerable impact on readiness.

Question. What actions will the Air Force likely be forced to take if the assurance and the funds are not made available?

Answer. Peacetime flight training will be severely curtailed in early fiscal year 1998/4 in order to continue Operations Southern and Northern Watch, Bosnia and Counterdrug operations. As a result, for those units not directly supporting these contingencies, we anticipate crew readiness will decline, aircraft mission capable rates will continue to erode, and spare parts and inventories will further be depleted. Pilot training will be curtailed, further aggravating the pilot shortage. Bottom line—the current decline in retention and readiness will accelerate, requiring two to three years and an increase in funding to recover.

F-22

Question. GAO recommended Congress defer \$595 million from fiscal year 1999 for the first two F-22 production aircraft due to program delays. What is the Air Force's position on this?

Answer. The Air Force does not support the GAO recommendation because it would seriously impact the program. A one year slip to the program would break the EMD and production cost caps, cause a \$2.75 billion total funding impact, and force an IOC slip of 12 months.

The GAO's recommendation is based on three concerns: (1) delays in the flight test program; (2) a perception that the F-22 program has fewer stable manufacturing processes compared to other civilian and military programs; and (3) delays in avionics software development and testing.

The Air Force disagrees with these concerns. The F-22 is ready for production based on 43,889 hours of wind tunnel testing, 6,200 hours of engine testing, 2,100 CPU hours modeling and simulation, and 180 flight test hours that will occur this year.

By December 1998, 75 percent of avionics hardware will be delivered using production rather than developmental processes. Also, it is invalid to compare the F-22's manufacturing processes to other programs because of differences in technologies, manufacturing processes, tolerances, degrees of maturity, level of commercial components in the design, etc.

Avionics software risks are well defined. The current schedule has 5 months of margin in the development of software Blocks 1 through 3.1.

Question. With the reduced F-22 buy of 339 aircraft, what assurances can you give that the aircraft can be produced without cost growth normally experienced when a program is reduced and stretched?

Answer. The Air Force and Contractor team are committed to live within the Congressionally mandated cost caps and are realizing significant potential production cost reductions. The F-22 contractors are progressing toward validating cost reduction initiatives valued at \$15.2 billion. Our post-QDR goal was \$12.7 billion while our current estimate is \$15.2 billion. The government-contractor team signed a Memorandum of Understanding on January 14, 1998 committing to deliver 339 aircraft under the Congressionally mandated cost cap. The cost cap represents the cost of delivering a 339 aircraft program as determined by a joint government-contractor team.

QUESTIONS SUBMITTED TO GEN. MICHAEL E. RYAN

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

CONTINUATION PAY AND AVIATION CAREER INCENTIVE PAY

Question. What percentage of pilots receiving Aviation Continuation Pay and Aviation Career Incentive Pay are in non-flying billets at this time?

Answer. Twenty-eight percent of the pilots currently receiving Aviation Continuation Pay (ACP) and 23 percent of the pilots receiving Aviation Career Incentive Pay (ACIP) are in non-flying billets. These pilots are either attending Professional Military Education, filling leadership positions, or providing operational expertise to Air Force and joint staffs.

PAY EQUITY

Question. Is there equity in pushing to increase pay for pilots again in fiscal year 1999, without addressing the needs of aircraft maintenance professionals and other specialties vital to the mission?

Answer. The Air Force is not requesting a pay increase specifically for pilots in fiscal year 1999. The Air Force's retention gameplan is designed to reduce tempo,

improve quality of life, enhance compensation, and improve personnel policies. These initiatives address the concerns of all Air Force members.

Many of the following compensation enhancements we requested and received in the 1998 National Defense Authorization Act (NDAA) were designed to improve the quality of life for all of our members. The NDAA:

- Increased Family Separation Allowance from \$75 to \$100 per month for those members separated from their families for more than 30 days;
- Included provision to protect an individual's total pay from decreases related to their assignment to field conditions at home station or deployed; and
- Provided new authority to pay up to \$300 per month to those assigned to locations considered less desirable or safe which present "quality of life hardships".

The Air Force will continue to use a variety of tools, to include selective reenlistment bonuses, to ensure retention of critical enlisted specialties within the Air Force. The Department of Defense is also evaluating whether increased pays, including new authorities, are necessary to improve the retention of selected career enlisted specialties.

PERSTEMPO

Question. Given the PERSTEMPO turmoil associated with peacekeeping missions, why has the Air Force limited deployments to 45 days, when increased lengths would provide stability to rear area units?

Answer. Shorter duration deployments for some Air Force aviation units ensure the highly technical skills developed in our airmen do not atrophy because of limited training opportunities while deployed.

Shorter deployments also favorably address several key quality of life concerns identified by our people. Given sufficient notice prior to deployment, disruption is minimized and the benefits include: Improved management of pre- and post-deployment training requirements; overall unit readiness is better sustained over the course of a 45-day rotation; and reduced length of family separation.

FLYING HOUR PROGRAM

Question. I understand that the Air Force is continuing to experience shortfalls in the flying hour program, particularly in spare parts. What is the current shortfall and how are you resolving it? Do you project a problem in fiscal year 1999?

Answer. High OPTEMPO and aging aircraft continue to increase the cost of our flying hour program. The flying hour program is predicated on historical cost data that reflects program costs from the two previous years. The current shortfall for fiscal year 1998 of \$209 million will be reflected in our Omnibus reprogramming submission at the end of April. Recently our fiscal year 1999 Unfunded Priority List identified a shortfall of \$219 million in reparable spares funding. This shortfall will continue to be refined as consumption factors are updated. We will again assess the fiscal year 1999 shortfall during the execution year.

JASSM

Question. How will the Air Force employ the Joint Air to Surface Standoff Munition (JASSM)?

Answer. JASSM provides the warfighter a unique, adverse weather, "launch-and-leave," PGM-quality weapon with a long-range standoff capability. The weapon's precise attack capabilities enable JASSM to place high value, fixed or relocatable point targets at risk while minimizing aircrew and launch platform exposure to enemy air defense systems. Potential JASSM targets range from non-hardened above ground to hardened, shallow buried targets. JASSM is designed to be compatible with both fighters and bombers.

This missile will contribute significantly to the Secretary of Defense's guidance to rapidly defeat the enemy's initial attack in the earliest phase of a conflict. In the subsequent stages of conflict, the missile would be employed against selected high value, heavily defended targets. Additionally, JASSM employment could be tasked as part of a crisis action response directed by National Command Authorities (NCA's).

Aircraft delivery methods can be accomplished from low-to-high altitudes and are scenario-dependent based on enemy defenses, range-to-target, weather, and launch aircraft capabilities. Via the target of opportunity mode, the aircrew, prior to missile release, can retarget relocatable high value targets by updating GPS geo-referenced target location data. JASSM terminal guidance for targets of opportunity is provided by GPS/INS only.

MANNED RECONNAISSANCE

Question. It is my understanding that the Air Force is in the process of reviewing options for a new generation manned reconnaissance plane. This contradicts the Department's previously stated objective to replace manned reconnaissance with UAV's. Has the Department changed its strategy with regard to airborne reconnaissance?

Answer. The Air Force has not changed its position with respect to the airborne reconnaissance mission. We are committed to maintaining the existing manned and unmanned reconnaissance assets, while developing additional vehicles to augment and potentially replace current platforms. The existing high-altitude manned reconnaissance aircraft, the U-2, will be viable for the foreseeable future.

The Global Hawk is one of two complementary air vehicles being developed, along with a Common Ground Segment, in the High Altitude Endurance (HAE) Unmanned Aerial Vehicle (UAV) Advanced Concept Technology Demonstration (ACTD). The Global Hawk is envisioned to be a long-dwell, stand-off collection platform, similar to the U-2.

If the HAE UAV ACTD is successful and a decision is made to acquire and operate the Global Hawk, it will initially augment the U-2.

BASING OF UNMANNED RECONNAISSANCE SYSTEM

Question. Have you developed plans for the basing of new unmanned reconnaissance systems, such as Global Hawk or the Tier III Minus Darkstar? How will you take into account operational training and global deployment factors in making these basing decisions?

Answer. The Air Force has established a High Altitude Endurance (HAE) Unmanned Aerial Vehicle (UAV) Integrated Process Team (IPT) that has been meeting since November 1996. While preparing for potential introduction of the HAE UAV's into the Air Force inventory, this team has dealt with a great many questions pertaining to fielding, operations, employment, training, basing, and manning. Air Combat Command conducted preliminary site surveys for potential HAE UAV bed down locations, however, no decisions or recommendation have been made at this time. Since Global Hawk and DarkStar are still Advanced Concept Technology Demonstrations (ACTD), they are not Air Force assets and still must prove military utility and be deemed affordable.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

READINESS

Question. What do your latest, 1998, data show about pilot retention? Is it getting better or worse? Is it better or worse for married pilots? With families?

Answer. Our latest retention data confirms we are in a challenging pilot retention environment. The Air Force's leading pilot retention indicator, the Aviator Continuation Pay (ACP) take-rate has declined slightly from fiscal year 1997 levels. We closed out fiscal year 1997 with a 34 percent long-term ACP take-rate, to include 38 pilots who originally declined the bonus in fiscal year 1997, but accepted the higher rates in fiscal year 1998. Our current fiscal year 1998 long-term ACP take-rate is 28 percent; however, we feel it is still too early to draw any conclusions from this data. To date, only 31 percent of the fiscal year 1998 eligible pilots have made their ACP decision. We are cautiously optimistic that the increased ACP coupled with Air Force efforts to reduce TEMPO and improve quality of life will increase pilot retention. As for pilots with families, the long-term ACP take-rate has always exceeded the rate for our single pilots. The following spreadsheet highlights this fact:

ACP TAKE RATES

[In percent]

Fiscal year	Status	
	Family	Single
1989	72	53
1990	44	27
1991	47	30

ACP TAKE RATES—Continued

[In percent]

Fiscal year	Status	
	Family	Single
1992	73	65
1993	80	76
1994	80	76
1995	81	54
1996	75	49
1997	36	19

Question. What are the socio-economic profiles of the pilots leaving? Staying?

Answer. The Air Force does not track the socio-economic profile of pilots beyond marital status and number of dependents; economic status is limited to knowledge of the individual's pay and bonuses. The Air Force does conduct pilot bonus non-taker surveys to identify reasons why pilots are leaving the Air Force. Our survey results highlight TEMPO (19 percent), quality of life concerns (14 percent), and airline hiring (11 percent) as the top three reasons why pilots are separating from the Air Force. The survey results show the close relationship between increased tempo and quality of life concerns.

Air Force personnel are being deployed at four times the rate they were during the Cold War. Frequent deployments have social impacts particularly with family members—increased periods of separation, longer work hours at home station, and a general lack of planning stability. Eighty-three percent of our pilots are married. Although we don't track the employment status of our pilot's spouses, a growing trend throughout society is the working spouse. Military service inherently requires frequent relocations and the increased absence of the military member due to deployments complicates any spouse's career plans.

Airline hiring is another significant factor affecting pilot retention. Our analysis reveals that economically, a pilot will have greater life stream earnings if they separate from the military and obtain a job with a major airline at the earliest opportunity. If pilots are strictly motivated by money, they will separate from the Air Force and fly for the commercial airlines at the earliest opportunity. While we suspect our young pilots may be making economic decisions, we feel the majority of our pilots join and continue to serve in the military for other reasons, to include camaraderie, benefits package, flying opportunity, and the opportunity to serve the nation.

Question. Are you aware of surveys of pilots showing that a major complaint is lack of respect for Air Force leadership? What are the specific complaints about?

Answer. In fiscal year 1997, the Air Force surveyed all pilots who declined the pilot bonus and the number one reason flyers gave for getting out was tempo (19 percent). The second most cited reason was Quality of Life concerns (14 percent) and when we peeled that issue back one layer, the reason was too much time away from home. In other words, tempo was driving 33 percent of our pilots to turn down the bonus and get out.

Concern with leadership actually ranked 9th on the list of concerns—only mentioned by 4 percent of those exiting. The main concern seemed to be at the squadron and group command level and we are addressing these concerns.

Each MAJCOM holds squadron commander selection boards to pick only the best leaders possible. Once selected they must attend Pre-command Squadron Commander Training. Similarly, all colonels compete on the new Command Selection Board for Group command positions. This stringent screening process, coupled with an intense 2–3 week preparation course, is another positive step to ensure only the best are selected for command.

In addition, the CSAF has implemented a Notice to Airman (NOTAM) program to articulate the Air Force's senior leadership's efforts regarding a variety of issues. This program provides commanders at all levels first-hand information on issues of importance allowing them to get the "real story" out to their troops.

QUALITY OF LIFE PROGRAMS

Question. Which of your "quality of life" programs are working? Which are not? Which generate the best pay-off in terms of retention? Please provide the data and analysis to substantiate your answer, or are you using judgement or anecdotal evidence to assess the degrees of success or failure?

Answer. In a quality of life survey conducted across the Air Force last fall, two-thirds of our enlisted and three-quarters of our officer members indicated satisfaction with their quality of life and over 70 percent indicated their families remain supportive of career service.

While we strive to quantify the retention value of quality of life programs we do not have quantifiable data at this time. We maintain that the success of some of these programs is best seen in how they contribute to keeping airmen focused on the mission rather than worrying about their basic needs. The Air Force emphasizes quality of life initiatives and objectives across seven priority areas which address a wide-range of needs for our members. Our 1998 Quality of Life Focus paper outlines the initiatives associated with each of the following priority areas: (1) pursue fair and competitive compensation and benefits; (2) balance the impact of high tempo levels; (3) provide access to quality health care; (4) provide access to safe, affordable, and adequate housing; (5) preserve retirement systems and benefits; (6) increase and enhance support to community programs; and (7) expand educational opportunities and access.

Question. Does the Air Force have any studies on these issues? By independent organizations?

Answer. The Air Force used the 1997 Quality of Life (QoL) Survey to gather data on the effectiveness of our people programs. Recent QoL survey results cited health care, educational opportunities, commissaries and exchanges, fitness centers, and housing as the most important QoL efforts influencing retention.

The OSD Quality of Life Office recently contracted an independent study to explore service returns on quality of life investments in terms of retention. This study will investigate specific quality of life programs, their influence on retention, and compare the investment costs of these programs to attrition costs.

Question. What changes have been occurring in spouse, child, and substance abuse for the past two years? Please differentiate between officers and enlisted, length of service, and among major military specialties and PERSTEMPO rates.

Answer. The Air Force's data on spouse, child, and substance abuse is not detailed enough to differentiate between officers and enlisted, length of service, major military specialties, and PERSTEMPO rates. The data we do have shows a decrease over the past two years in the number of spouses and children treated for abuse in Air Force treatment facilities. The data also shows a decrease in severity of abuse treatment. Air Force drug testing results over the past two years show no change in the rate of positive findings, even with the CY 1997 increase in the drug testing rate from 50 to 75 percent of our end strength.

Question. What is the role of the current high PERSTEMPO in any changes in family or substance abuse? Please provide copies of any analysis you have of the relationship.

Answer. We do not have any scientifically based data reflecting the relationship between PERSTEMPO and family or substance abuse.

Spouse abuse rates remained steady from 1993–1995, then declined in 1996 and 1997; severity of cases also decreased over this time period. Child abuse rates show a slightly decreasing trend over the same period and also a decrease in severity.

According to the latest report of the DOD Worldwide Survey of Health Related Behaviors, between 1992 and 1995 alcohol use, illicit drugs use, and tobacco use all decreased. These data are supported by Air Force drug testing results over the past two years showing no change in the rate of positive findings on urinalysis, even with an increase in the CY 1997 drug testing rate from 50 percent to 75 percent of end strength.

The next worldwide report will be available in late 1998. The 1998 survey will include PERSTEMPO deployment data, which should prove beneficial statistically.

QUESTIONS SUBMITTED BY SENATOR KAY BAILEY HUTCHISON

DEPLOYMENT OF UNITED STATES TROOPS IN BOSNIA

Question. What impact does the open-ended deployment of U.S. troops in Bosnia have on the Air Force's ability to contribute to the defense of vital interests elsewhere?

Answer. Present Air Force contributions to the Bosnia peace process will not inhibit our ability to support the National Military Strategy of the United States. Should operational taskings escalate in response to a particular crisis, the National Command Authority will prioritize taskings and allocate available resources to meet those requirements.

Question. Could you characterize for me the impact the mission in Bosnia is having on Air Force readiness across the board?

Answer. The Bosnia operation, by itself, has had no major impact on overall Air Force readiness. Bosnia does add stress on our individual high demand-low density systems such as U-2, Predator, and Rivet Joint.

Question. What is your estimate of the future Air Force costs of the Bosnia mission, and how do you propose to prioritize those costs against competing demands on limited resources? Specifically, what programs would drop below the funding line if we continue, "for an undefined period of time," the Bosnia mission?

Answer. The projected Air Force cost to support the Bosnia mission is \$250.7 million for fiscal year 1999. To pay for continuing operations without approval of the budget amendment would require the Air Force to decrement other programs within the already constrained fiscal year 1999 budget. At this point, we have not identified specific programs that would fall below the line if the Bosnia mission is indefinitely extended. However, the most likely candidates are in our carefully balanced, time-phased force modernization program.

NATO ENLARGEMENT

Question. We have heard widely varying estimates of the cost of NATO enlargement. If, as we have heard, the DOD budget, and the Air Force budget as well, is a zero-sum game, then which programs specifically will be sacrificed to allow NATO enlargement? What is the Air Force plan to accommodate NATO enlargement?

Answer. The Army is the DOD executive agent for NATO enlargement. The Air Force does not expect to pay and it has no plans to pay for any NATO enlargement requirements from the Air Force budget.

INFORMATION SECURITY

Question. In light of recent reports of attempts to hack into Air Force computer networks, what legislation can we or must we amend, alter, or enact, to help make your ability to conduct information operations easier and more secure?

Answer. In the wake of recent intrusions into DOD computer networks, the Deputy Secretary of Defense has directed a department-wide review of policies and practices that affect information operations. This review is being conducted on several fronts, including an examination of whether or not there are legal constraints that hamper our efforts to conduct effective information operations. Thus, it is premature for us to advocate specific legislative changes in this area.

It is our hope that the OSD-led effort, in which we are actively participating, will result in a clear articulation of the legal issues surrounding information operations as well as proposals for any legislative changes that may be deemed necessary to ensure our ability to identify and respond to on-line attacks.

READINESS

Question. To paraphrase your own statement concerning readiness, readiness is a function of personnel, equipment, training, logistics, and financial resources. If we look at each of these areas individually we see an air force comprised of 40 percent fewer personnel responding to over four times as many deployable commitments. And I'm concerned the details behind the headlines would provide even more cause for alarm—I think it all points to a readiness level that is either at a degraded level now or will be significantly degraded in the future. What are your specific plans to deal with these readiness challenges?

Answer. The Air Force has already done much to address the challenges to our readiness in the face of increasing demands for our forces:

TEMPO Initiatives

Global Sourcing—adjudicates CINC's requirements across the Combat Air Forces
Global Military Force Policy—establishes limits on tasking of selected high demand/low density assets for contingency operations

Reduced Joint/Air Force Exercises

Post deployment stand downs—1 day "down" for each 7 days deployed; up to 14 down days maximum

Eliminated Quality Air Force Assessments

Reduced Operational Readiness Inspections (10 percent in fiscal year 1998; 30 percent in fiscal year 1999)

Implemented temporary duty/deployment tracker

Shortened the duration for aviation unit deployments from 90 to 45 days

Funded 2 Additional RC-135's

Stood Up a Reserve Associate AWACS Squadron

45-Day Rotations to SWA

Aircraft Spare Parts Funding

95 percent in fiscal year 1998; 95 percent in fiscal year 1999

Compensation Initiatives

Pay Raise (2.8 percent fiscal year 1998; 3.1 percent fiscal year 1999)

Increase number of AFSC's qualifying for Reenlistment Bonuses (from 20 to 88)

Increase Hazardous Duty Incentive Pay

Increase Family Separation Allowance

Subsistence Allowance for Dorm Residents

Rated Management Initiatives

Reduce Rated ALO's by 47 Positions

Convert 20 percent Rated Staff Positions to Ops Staff Officer

Increase Pilot Bonus and Pilot Production

Quality of Life Initiatives

E-mail access to deployed airmen

Outreach Program—Squadron-level volunteers available to assist with family issues while member is deployed

\$296 million for Family Housing in fiscal year 1998.

We believe the demand for aerospace power will continue well into the future, and we recognize the need to restructure ourselves to better support this demand. In particular, we are looking for ways to increase the depth of our support structure by consolidating state-side bases. This will allow us to support forward deployments and home station demands more effectively and efficiently.

Question. Can you continue to expend large portions of your TOA on operations like Bosnia and Southwest Asia, while maintaining discipline to your plans for modernization? If so, How?

Answer. Without a supplemental appropriation, we cannot continue to expend the level of funding required to support ongoing operations in Bosnia and Southwest Asia. Initially, from within our Operations and Maintenance accounts, we will among other actions begin civilian furlough actions, defer aircraft and aircraft engine maintenance, cancel operational training exercises, terminate real property maintenance contracts, and postpone the opening of 4 child development centers. To avoid unacceptable reductions in equipment and training readiness, we plan to rely heavily on furloughing civilians. However, further actions would be needed to include requesting a formal reprogramming action. This would place our carefully balanced, time-phased modernization program at risk. Funding and execution of certain near-term (C-17), near-mid-term (bomber upgrades and precision-guided munitions), later-mid-term (F-22, Evolved Expendable Launch Vehicle, and Space-Based InfraRed System) and far-term (Airborne Laser and Joint Strike Fighter) requirements would have to be restructured and slipped, potentially degrading tomorrow's readiness and our ability to meet our future global engagement commitments.

FIGHTER AIRCRAFT REQUIREMENTS

Question. Can you give us your perspective on what we need both the F-22 and the JSF in the current timeframes being pursued?

Answer. A mix of F-22's and Joint Strike Fighters (JSF's) is the most effective solution to the Air Force fighter modernization challenge. When the F-22 reaches Initial Operational Capability (IOC) in fiscal year 2006, the average age of the F-15 fleet will be 26 years when the JSF achieves IOC in fiscal year 2010, the average F-16 will be 24 years old. Neither of these airframes would be able to fly much longer unless an expensive service life extension program was undertaken. These extension programs would provide only a marginal improvement to their current capability but at a significant cost. Additionally, the advancement and proliferation of air-to-air and ground-to-air threats could put both F-15 and F-16 fighters in a position of inferiority and threaten our ability to achieve air superiority in a major theater war.

The F-22 is the "force enabler." Its emphasis is on dominant air superiority capability while retaining a significant air-to-ground capability. It will allow a theater commander to rapidly achieve air superiority and enable all other Joint missions to take place unhampered by enemy airpower.

The JSF will provide the "bulk" of the Joint Commander's offensive airpower. Its affordable cost will allow us to procure it in enough numbers to sustain a high operations tempo. However, the JSF's affordability depends on the technologies leveraged from the F-22. Together the F-22 and JSF provide the optimum "high/low"

mix of dominant capability and high operations tempo that allows the Air Force to support the Joint Vision 2010 goal of full spectrum dominance.

F-22

Question. Are you concerned that anything short of full funding will impact the ability to stay on course with the F-22 within Congressionally mandated caps?

Answer. Yes, we believe that anything short of full funding up to the Congressionally mandated cost caps will impact the F-22 program's ability to complete Engineering and Manufacturing Development (EMD) and the production program within the caps. A deferral of funds will require an extension of EMD, which in turn will exacerbate problems with diminishing manufacturing sources. For the production program, there are inflation impacts, industrial base slowdown and restart risks associated with the qualification of new vendors and subcontractors. Additionally, altering the production program will void previous commitments made with the F-22 contractor team which enabled it to minimize subcontractor risk and cost increases.

Question. Are you experiencing any challenges during EMD that you would characterize as abnormal for a program at this stage in development?

Answer. No. The F-22 has experienced two manufacturing challenges and a problem with debonding of the stabilator. All have been resolved. These issues are typical of the challenges encountered during Engineering and Manufacturing Development. Provided funding and quantity stability, we expect to overcome future challenges that may occur during Engineering and Manufacturing Development.

T-6A

Question. I see you plan to replace the T-37 with the T-6A (the new JPATS-Texan); obviously this would have an impact on the current pilot situation. Can you outline for me your distribution plan for the T-6A Texan II at pilot training bases and identify how this might impact the rate at which you produce new pilots?

Answer. The Air Force currently plans to beddown the T-6A sequentially at Randolph AFB, TX, Laughlin AFB, TX, Vance AFB, OK, Columbus AFB, MS, and Sheppard AFB, TX. The timing of the transition from T-37 to T-6 at each base has been optimized to minimize the impact on pilot production rates—no impacts are expected under the current bed-down plan.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

READINESS IMPACT

Question. What is the readiness impact of maintaining a surge force in the Gulf over a long period of time?

Answer. The principal readiness impacts of maintaining the surge force are increased workload and increased deployment time. These, in turn, adversely impact retention of our experienced people. By June 1, 1998, nearly 50 percent of the aviation units presently deployed to the Gulf will exceed our maximum desired temporary duty rate of 120 days away from home station in a 12 month period.

AIRBORNE LASER

Question. How does the Airborne Laser fit into the Tactical missile defense architecture?

Answer. The Theater Missile Defense (TMD) architecture has four layers or tiers: attack operations, boost phase intercept, midcourse, and terminal phase. ABL is the only boost phase system. Destroying enemy missiles in the boost phase is extremely important for several reasons: (1) presents an enemy with the possibility that missile debris, including the warhead, may fall back on their territory—in this way, ABL serves as a viable deterrent to the use of weapons of mass destruction; (2) reduces the number of missiles that the midcourse and terminal defense systems must engage, enhancing their effectiveness; and (3) kills missiles before any early release of submunitions (ERS), as ERS is a very significant challenge for hit-to-kill defense systems.

In addition to its role as a boost-phase "shooter", ABL will also possess significant sensing capability that will improve performance of other TMD layers by: providing quick and accurate missile launch point estimates which cue attack operations assets; passing trajectory data and impact point predictions on missile warheads to midcourse and terminal systems to narrow their sensor search patterns and extend

their range; and predicting accurate and timely impact points to enhance passive defenses in the target areas.

JOINT STRIKE FIGHTER [JSF]

Question. What is your position on the need for a Joint Strike Fighter alternative engine program?

Answer. The Air Force supports the JSF Alternate Engine (AE) program. There is no operational requirement for an AE in the JSF. However, an AE program may offer some potential benefits such as: improved operational readiness since a single engine problem would not ground the entire JSF fleet; improved contractor responsiveness due to competition; and maintenance of the U.S. fighter engine industrial base.

Question. How much will it cost?

Answer. The total Joint Strike Fighter (JSF) Alternate Engine (AE) program cost is estimated at \$1.8 billion. Currently, the Services have fully funded the AE program through its Concept Demonstration Phase (fiscal year 2003). Funding for the AE Engineering and Manufacturing Development Phase, scheduled to begin in fiscal year 2004, will be addressed by the Navy and Air Force in their respective fiscal year 2000 POM's.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

LONG-RANGE AIR POWER PANEL

Question. Given the dynamics of the creation of the Long-Range Air Power Panel, most people think of it as studying the question of whether or not the Air Force should buy more B-2 bombers. The Panel is dealing with the same problem that we in Congress have had to address: the B-2 has some amazing capabilities, but further procurement would put the defense budget under enormous pressure. It is possible that the Panel will weigh the cost of buying another B-2 bomber against other, more cost-effective ways to keep our bomber force robust. Would you view it as appropriate for the Panel to come back with recommendations that affect the entire bomber fleet?

Answer. The Panel's Report was released subsequent to the March 4 hearing. The Long-Range Air Power Panel was established to evaluate the adequacy of current planning for United States long-range air power and the requirement for continued low-rate production of B-2 stealth bombers. The panel, as part of its evaluation and review, could consider: Trade-offs between additional B-2 bombers and other programmed DOD assets in meeting various scenarios; desirability of an increased rate of purchase of precision-guided munitions for aircraft in the existing B-2 fleet; the desirability of improving the low observable characteristics of the existing B-2 fleet; and affordability of additional B-2 bombers in the context of projected levels of future defense funding.

The Long-Range Air Power Panel provide several far-reaching recommendations for fully exploiting the current B-1, B-2, and B-52 bomber force, and for upgrading and sustaining the bomber force for longer term. These recommendations warrant careful review as the Air Force prepares its Program Objective Memorandum for the Department of Defense's fiscal year 2000-06 Future Years Defense Program.

START III AND BOMBER FORCE STRUCTURE

Question. Although the START III process is stalled at the moment, given the fact that the Russian Duma has not yet ratified START II, these strategic arms reduction treaties affect the number of bombers deployed in a strategic role. Is the Air Force at all concerned about the impact of START III on the strategic or conventional bomber force? What effect could the treaty have on bomber force structure generally? Are we taking precautions so as not to jeopardize our conventional bomber capability?

Answer. With decreasing forward-basing options and overflight concerns, sustaining our long-range bomber capability is a top priority to the Air Force. Without a clear START III framework, it is premature to discuss the effects this treaty would have on our bomber force structure. START III negotiations have not yet begun. Once we have clear START III guidelines, we will work closely with OSD and JCS to ensure our conventional and strategic force structure continues to meet our national security objectives.

DEEP ATTACK WEAPONS MIX STUDY

Question. Am I right in understanding that the Deep Attack Weapons Mix Study came to its conclusions about bomber force structure needs based on certain assumptions in its models about what force structure was available for a deep strike? What assumptions did the DAWMS models make about the number of B-52's in the force structure? Did the DAWMS study ever include in its models' assumptions a force structure of 94 B-52's? If not, what deep strike capabilities would additional B-52's bring into play?

Answer. Part II of the Deep Attack Weapons Mix Study (DAWMS) was tasked to examine tradeoffs between long range bombers, land and sea based tactical aircraft and missiles used to strike the enemy's rear area. It was subsequently expanded to examine tradeoffs, including options that would involve more than 20 B-2's as matched against carrier assets and missile assets. The Quadrennial Defense Review (QDR) subsumed the assessment of force structure sufficiency while Part II of DAWMS was scaled back to only examine tradeoffs for more than 20 B-2's. Throughout all of these analyses (DAWMS as well as QDR), the Department of Defense used current, funded, "combat coded" aircraft. Although the size of the entire B-52H fleet is currently 94 aircraft, force structure analysis and deliberate war planning use only combat-coded aircraft. The number of combat-coded aircraft determines the number of aircrews available and level of war reserve spare parts. Of the 94 B-52H aircraft in the inventory, 44 are combat-coded, 31 are attrition reserve, 12 are training aircraft, 6 are backup available aircraft, and 1 is a test aircraft. Attrition reserve aircraft are only funded for recurring maintenance and aircraft upgrades, not operations and training. Thus, there are only enough aircrews, maintenance personnel and spare parts to support the 44 funded combat-coded aircraft used in QDR and DAWMS scenarios.

It is difficult to assess the impact of additional B-52's without modeling and analyzing the interrelationships of joint force operations in a dynamic campaign environment. The addition of any type of deep-strike capable asset would probably increase U.S. capabilities, however, the total number of assets deployed to a theater are sequenced and measured according to lift requirements and capabilities, and beddown limitations. As the addition of any asset would likely result in the removal/delay of others, the impact of adding B-52's can't be assessed independent of a thorough campaign analysis.

AIRBORNE LASER

Question. Looking ahead, what might be the major criteria the Air Force will use when it decides where to base the ABL?

Answer. The ABL basing site survey is scheduled to begin in fiscal year 2000 with a decision in fiscal year 2001. Right now, the important criteria the Air Force will use to decide ABL basing include, but are not limited to:

- Is there an established existing Base Infrastructure? (Use of existing facilities helps minimize military construction requirements.)
- Can the airfield support a 747-400 aircraft (e.g., no modifications to runway, approaches lights, taxiways, navigation aids, basic POL (petroleum, oil and lubricants) storage, or tower required)?
- Does the base have sufficient ramp space (parking apron), alert facilities and laser fuel servicing for seven aircraft?

PILOT RETENTION

Question. If Congress wanted to address the problem of pilot retention more aggressively than the Administration is proposing to do, how might we best do that?

Answer. The Air Force is optimistic the current pilot retention gameplan designed to reduce TEMPO, improve quality of life, restore compensation to original levels, increase pilot production, reduce pilot requirements, and improve personnel programs will help Air Force pilot retention. We feel that more time is needed to accurately evaluate the effects of our initiatives. Continued Congressional support for TEMPO reductions, quality of life improvements, aviator compensation initiatives and pilot production alternatives is key to ensuring the success of our efforts.

NAVIGATOR TRAINING

Question. My understanding is that the Air Force has had problems lately not only with the retention of navigators, but also with their training. Could you please comment on the new joint navigator training program? Is the Air Force satisfied that this joint training system is meeting the Air Force's needs?

Answer. Joint training initiatives began in response to the April 15, 1993 Secretary of Defense Memo on the "Roles, Missions, and Functions of the Armed Forces of the United States." This memo identified three distinct areas for joint training: fixed-wing primary, advanced airlift/tanker/maritime patrol training, and Naval Flight Officer/Weapons Systems Officer (WSO)/Electronic Warfare Officer Training (EWO). Joint Undergraduate Navigator Training began in October 1994 on a limited scale with all active duty WSO's receiving their training at NAS Pensacola, FL. Since October 1995, all Air Force Navigators, WSO's and EWO's have started their training at Pensacola. With the exception of heavy aircraft navigators (tankers, airlift, reconnaissance) who finish their advanced training at Randolph AFB TX, all others complete their training at NAS Pensacola or Corry Station FL. Current annual navigator production is set at 300 active duty students per year.

The Air Force is satisfied with the quality of the graduates from the Navy program.

CONTRACTING OUT

Question. In March of 1995, the services' personnel directors told the Armed Services Personnel Subcommittee that civilian personnel ceilings, not workload, cost or readiness concerns, are forcing them to send work to contractors that could have been performed more cheaply in-house. Also in that month, GAO reported that "the personnel ceilings set by OMB frequently have the effect of encouraging agencies to contract out regardless of the results of cost, policy, or high-risk studies." Contracting out because of personnel ceilings raises some concerns. There is no public-private competition, because there simply aren't enough federal employees to do the work. We all know that the Air Force's civilian workforce will get smaller, and that there will be more contracting out. But if the Air Force has the money to do work that needs to be done, the Air Force should be able to use federal workers if in-house performance benefits the warfighter and the taxpayers. Is the Air Force adhering closely to the authorization and appropriations provisions that prohibit management by personnel ceilings? How can we make this prohibition stronger and ensure greater compliance with the will of the Congress? Isn't it true that using personnel ceilings is a relatively recent practice?

Answer. The Air Force is complying with the intent of Congress and is adhering to the authorization and appropriations provisions that prohibit management by personnel ceilings. The Air Force has certified to Congress that, unless Congressionally directed, the Air Force does not use any constraints or limitations in terms of man years, end strength, full-time equivalent positions, or maximum number of employees in managing the civilian workforce. Consistent with Congressional, OMB, and Department of Defense guidance, the Air Force manages the civilian workforce based on workload requirements and budget. Congressional guidance such as the Fiscal Year 1998 National Defense Authorization Act contains language that prescribes limitations on the size of management headquarters and management support activities, requires reductions in the Defense Acquisition Workforce, limits the number of civilian employees of a military department who are non-dual status military technicians, and prescribes level of depot-level maintenance and repair that may be contracted for performance by non-governmental personnel. In addition, previous Congressional guidance, such as the National Performance Review Report and the Federal Workforce Restructure Act of 1994, has placed constraints and limitations on civilian workforce management. The Air Force does not use personnel ceilings as a management practice.

SUPERBASES

Question. One of the themes of your testimony is that the Air Force is considering moving towards a new concept of basing—which you called "superbases." Would any Air Force bases currently fit into the superbase category?

Answer. The Air Force is still in the early stages of developing this basing concept; thus, it is premature to say if any base currently fits into this category.

Question. In your analysis of this concept, have you projected the military construction investments that would be required in order to create superbases? Would you agree that the more drastic the change to superbases, the more new construction would be required?

Answer. Analysis has not started on the Milcon investments required to create this basing concept. The Air Force is in the early stages of developing a strategic basing concept which will focus on operational considerations and ensuring deployments are equitable and predictable to Air Force people. Consolidation of missions and bases could drive new construction requirements.

Question. Do you have a notional estimate of how much military construction funding would be required to make such a shift in basing philosophy possible? How would this compare to the amount of money saved at bases to be closed?

Answer. We do not have notional estimates on construction costs.

SUBCOMMITTEE RECESS

Senator STEVENS. Gentlemen, thank you very much. I am sorry to have kept you for so long.

Again, I mean no offense about your statement, Mr. Secretary. I understand you must be frustrated. But God, I hope you don't do that. If you want to do it, give it to us and we will do it for you—if you really want to do it. But don't make a political decision. I think that would be very bad right now.

Thank you very much.

[Whereupon, at 12:46 p.m., Wednesday, March 4, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

WEDNESDAY, MARCH 11, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:25 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Bond, Inouye, Bumpers, and Dorgan.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE NAVY

SECRETARY OF THE NAVY

STATEMENTS OF:

HON. JOHN H. DALTON, SECRETARY OF THE NAVY

ADM. JAY L. JOHNSON, CHIEF OF NAVAL OPERATIONS, U.S. NAVY

GEN. CHARLES C. KRULAK, COMMANDANT, U.S. MARINE CORPS

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. My apologies to you, Secretary Dalton, Admiral Johnson, and General Krulak, I just made an opening statement to the group that's honoring 30 years of the Sea Grant Program, and like all events, it took longer than I anticipated.

We are pleased to have you this morning to testify on the Navy and Marine Corps 1999 budget. The committee's initial look at the Navy and Marine Corps' budget suggests you have built a solid budget which lives within the funds available; however, there will be, I am sure, some challenges to the allocations you have recommended.

We all recognize that people are the heart of our armed forces. The Navy has seen negative trends in pilot retention as well as a disturbing trend in recruitment, in general. The "Operations and maintenance" account is basically flat compared to the fiscal year 1998, while there is no question that operational tempos have increased.

It is our goal to try to make certain that the Navy and Marine Corps can maintain readiness within this budget request. Both the Navy and Marine Corps also face a number of near- and far-term acquisition challenges, the Navy must try to maintain a fleet of 300 ships, which requires the construction of 10 ships, but the 1999 budget will support only 7 ships, and the commandant has consist-

ently told us he needs \$1.2 billion annually for modernization, and the 1999 procurement budget for the Marine Corps is \$745 million.

The Navy is beginning to develop the future aircraft carrier as well as the future surface combatant vessel, the DD-21. In a budget that's likely to be flat to the year 2003, these competing demands will present the Navy, Marine Corps team, and the Congress with very difficult decisions on allocating the limited dollars that we have available for this modernization.

We look forward to working with you on the fiscal year 1999 budget, as well as planning for the future, and we're going to make your full statement a part of the committee's record.

Before you proceed let me call on my colleague from Hawaii, the distinguished former chairman of this subcommittee.

STATEMENT OF HON. DANIEL K. INOUE

Senator INOUE. Thank you very much, Mr. Chairman. I wish to join you in welcoming Secretary Dalton, Admiral Johnson, and General Krulak. I believe our Nation is most fortunate to have this fine team to represent our Naval and Marine forces.

I have been especially impressed to see how well they all work together to advance the goals of our sea surfaces. As many of us know, this has not always been the case, but in recent years it has been clear that the Navy and Marines have come together under the leadership of these gentleman to speak with one voice on the collective priorities.

These are challenging times for the Navy and Marines. The Navy has been reduced from a planned force of 600 ships to one today not much above 300. Our Marine Corps has been able to hold on to much of its force structure, but are seeing manpower cut by 14 percent.

The request before the subcommittee is \$79.2 billion for Navy and Marine programs. This amount is approximately \$1 billion more than funded for the current fiscal year, but it is not all good news.

Our counterpart Military Construction Subcommittee will see a cut of over \$670 million for Navy and Marine programs, and so when you adjust for inflation the total Navy Department's budget has a real cut of 1½ percent.

With that knowledge, I must say I'm concerned how the Navy and Marines will continue to maintain the quality and ready forces that they have today. I think we have seen some cracks already.

In recent years we have had flying hours and spare part shortfalls. Today, the Navy is having a difficult time meeting its recruiting goals, and retention has been a constant struggle.

At the same time I understand that we are asking more from our forces. Our marines are being tasked to respond to crises at record levels, and our carrier battle groups are being asked to re-deploy with less training time.

Mr. Chairman, I join you in commending our witnesses for doing their best to respond to these challenges, but I'm concerned that we might be asking too much of them.

In a balanced budget environment we cannot expect to provide more resources to address these problems, instead we must all

work together to ensure that the resources we have spent are most effective in an efficient manner.

There will be no margin for error, no room for that, no room to waste resources on duplication, and this fact must be realized and endorsed by the administration, by the Department, and by the Congress. It's not going to be an easy chore, but I do hope that when the dust settles we will continue to have a Navy and Marine Corps that will be able to carry on our Nation's work in the manner that we have been privileged to receive from them.

I thank you very much.

Senator STEVENS. Does anyone have an opening statement that they wish to make?

PREPARED STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. Mr. Chairman, I'd like to have the opportunity to put a statement in the record, I don't want to delay the hearing. We are happy to have the witnesses here, and we are kind of anxious to hear their testimony.

[The statement follows:]

PREPARED STATEMENT OF SENATOR THAD COCHRAN

Mr. Chairman, I'm pleased to join you in welcoming this distinguished panel of witnesses to review the budget request for the U.S. Navy and Marine Corps for fiscal year 1999.

One of my concerns about the fiscal year 1999 request is the Navy's shipbuilding program, which I think falls far short of meeting the Navy's requirements for 300 ships. With the average life span of a ship being approximately 35 years, the Navy needs to procure approximately 10 ships a year to maintain a 300 ship goal.

Mr. Chairman, the Navy's procurement rate for new surface combatant ships will not meet their stated goal of 300 ships. The current Future Years Defense Plan calls for only 5 ships in fiscal year 2000, and only 7 ships per year through fiscal year 2003.

At this rate, we will procure an average of only 6.4 surface combatant ships per year from fiscal year 1999–2003. I also understand the Navy's projected ship procurement rate for fiscal year 2004–2015 will also fall below the 10 ships per year required to meet the stated goal of a 300 ship Navy.

I know there are some new "smart" technologies that can help reduce manning and other costs of operating and maintaining our fleet. There are also some initiatives such as the program to convert older CG-47 cruisers to Theater Ballistic Missile Defense capability and include Smart Ship control systems which can extend service life of these ship. I support these efforts.

I am also pleased that the Navy has included full funding for the TAGS-65 Oceanographic Ship, the last ship in its class, which will provide much needed research and other support for the Navy's missions around the globe.

While I support these new initiatives and programs, as well as the Navy's recently announced multi-year procurement of DDG-51 Destroyers, we must not lose sight of the ever-widening gap that is developing between our 300 ship goal and the Navy's actual and projected ship procurement rates.

Other issues that I hope our witness will address today include OPTEMPO and the Readiness of our sailors. According to the Navy's Posture Statement, readiness of deployed units remain high, but constrained resources and the pace of operations are affecting the readiness of non-deployed forces. Several recent articles have highlighted these concerns.

—January 15, 1998 Norfolk Virginian-Pilot article quoted a senior Norfolk officer as saying "Keeping two carriers in the gulf is causing us some real headaches."
"Hopefully the next deployer (Stennis) will go out on time, but, after that, all bets are off."

—March 5, 1998 Washington Times reported that in testimony to Congress, VADM Dan Oliver, the Navy's senior personnel expert, indicated it is "very difficult" to keep pilots, submariners and others. He cited the hectic pace of Navy life and the loss of a chance to command a ship, due to the decommissioning of many ships, among the reasons for retention problems.

—March 7, 1998 San Diego Union Tribune reported that during a March 6, 1998 hearing of the Readiness Subcommittee of the House National Security Committee a “Marine sergeant told congressman that some units have .50-caliber machine guns manufactured during the 1940’s and it can take up to 18 months to get the heavy weapons repaired or replaced.”

Mr. Chairman, I know the Secretary, the CNO and the Commandant are well aware of these problems and I look forward to hearing from them today.

STATEMENT OF HON. CHRISTOPHER S. BOND

Senator STEVENS. Thank you. Senator Bond.

Senator BOND. Thank you, Mr. Chairman. I will be brief. I join you in welcoming the Secretary, the Admiral, and General Krulak, and I share the view of our distinguished ranking member that your team is being asked to carry a major portion of the burden, while not being adequately resourced.

We hear news, the Pentagon is having difficulty trying to realign its forces to cover both the Arabian Gulf presence and the re-emerging threats to peace and security in the Balkan regions, and these are not close to being the two major regional contingencies [MRC’s] we thought we’d be ready to face.

I know that many of my colleagues would join in expressing concern over the services’ ability effectively to meet their mission requirements making deep and risky cuts in critical supply, stocks, accelerating appreciation, not to mention the additional strain put on personnel, and we are all concerned about the abysmal retention rates of pilots in the services, and I submit that simply throwing money at the problem is not the answer. I gather the considerable bonus package only engendered about a 3- to 4-percent increase in the retention rate.

I understand that many of the people who joined the service did so for very noble reasons, and the financial considerations are not the entire problem, and the exodus of individuals now spans the rank structure, and I think that we are seeing some problems with incentives for command being hamstrung when junior officers are paid more than their seniors.

I hear from people in the service that over the years, recent years, the individual tactical flight time has been dramatically curtailed. I am sure that way back, Admiral, your logbook had only a few blank lines in the monthly accounting of your flights, and I venture to say that a lieutenant today has a lot more blank space in the logbook, and much of the time dedicated to other than war contingencies is not really increasing their warfighting skills.

I think it is also important that we reflect on the intangibles, which made you, Admiral, and you, General, when you were butter bars, look up to the unit commanders, which when you became commanders gave you authority and accountability to stand up and lead.

We have warned in this committee over the years that the Department of Defense’s policy of low-balling funding requirements would exacerbate the fiscal problems facing all of the services’ abilities to conduct the operations required.

As I understand from Dr. Hamre’s comments last week, you are already expending funds from the fourth quarter of the fiscal year 1998 budget for missions being conducted today, and we are only in March.

The emergency supplementals this year are going to be very important, but some of these operations have extended way beyond any contingency, and we need to get some straight answers and some straight priorities from the Department of Defense.

On another very important note, Mr. Secretary, we are looking forward to the commissioning of the U.S.S. *Harry S. Truman*, we have made a commitment to another carrier, and I am also concerned that we accelerate the evaluations of the F/A-18E/F not to skip any testing, but to work as hard as we can to cure any anomalies, then we can begin a robust and, we believe, necessary multiyear procurement.

We want to do everything. I am personally committed to providing the men and women who fly from the carriers the finest and most advanced aircraft, to give them the edge so critical to today's high-tech, high-speed, highly dangerous air combat arena, and I will have more to talk about in that in the Q&A period.

Thank you, Mr. Chairman.

Senator STEVENS. Senator Dorgan, do you have an opening statement?

STATEMENT FROM HON. BYRON DORGAN

Senator DORGAN. Mr. Chairman, let me just put a statement in the record, I am anxious to hear the witnesses instead.

[The statement follows:]

PREPARED STATEMENT OF SENATOR BYRON DORGAN

I would first like to thank these capable witnesses for their appearance before this committee. I recognize, as the other Committee Members do, that their job is not an easy one, given the current state of world affairs and the increased demands being placed on our men and women in uniform. I am particularly impressed by the retention rates of the Navy and Marine Corps. The statistics in this area say much about the efforts and the abilities of the Secretary, the Chief of Naval Operations and the Commandant of the Marine Corps, as well as those who work for them. Although we know more must be done in this area, the Navy and Marine Corps are to be commended.

The burden for managers in the military is a familiar one in government today: doing more with the limited funds available. I would hope that the questions I pose would be taken in that light. As other members of this committee, I am committed to doing the most I can for our military personnel with the funds we have available. Most of all, I want to ensure that the problems that are causing the exodus of some of our most qualified people from the military are solved.

Senator STEVENS. Thank you. Mr. Secretary, we are pleased to have your statement. All of your statements will be in the record.

OPENING REMARKS OF SECRETARY DALTON

Secretary DALTON. Well, thank you very much, Mr. Chairman, Senator Inouye, distinguished members of this committee.

This is my fifth time to appear before this committee, and let me say what a privilege and honor it is to be here to represent the Department of the Navy.

I am also very proud to be here with these two outstanding officers who lead our Navy and Marine Corps. They do an outstanding job, and as you say, Senator Inouye, we really do work together as a team. The Navy and Marine Corps team is, indeed, working very well together.

I would like to take a few minutes to reflect on where the Navy Department has been in the last few years, where we are today, and where we are headed. I would like to break that down, if I could, in talking operationally, programmatically, and in personnel.

OPERATIONALLY

First of all, operationally. We are our Nation's 911 force. When there is a problem, it is the Navy-Marine Corps team that gets the call. That is very evident today in the Arabian Gulf.

Today, we have two carrier battle groups, and one amphibious ready group there, and I am very proud of the men and women who are there doing such an outstanding job.

While there is debate today about the recent agreement that was made between the Secretary General of the United Nations and Saddam Hussein, we simply would not have that agreement to debate had it not been for the presence of the Navy-Marine Corps team in the gulf. Winston Churchill had it right when he said, "The best Ambassador is a warship," and those warships that were there showed the resolve of this Nation, and, indeed, provided an opportunity for that agreement to be signed.

Similarly, things have happened like that around the world in the last few years: restoring democracy to Haiti; bringing the parties to the peace table to make the Dayton accords possible; bringing stability in the Taiwan Straits a couple of years ago, when that troublesome problem arose; the rescue of Capt. Scott O'Grady; and the noncombatant evacuation operations in Albania, and the former Zaire. From A to Z, the Navy-Marine Corps team has been there, has responded, has responded professionally, has answered all bells, and I am very proud of the job the Navy Department has done.

Operationally, this committee has been extremely supportive of the Navy Department.

I am grateful to you, and we have come to you to ask for support for carriers, submarines, ships, airplanes, big-deck amphibious ships, and quality of life improvements for our people. This committee has not only responded and supported our request, but in the past has, indeed, enhanced our requests, and we are grateful to you.

I pledge to you that we will continue to pursue initiatives like acquisition reform, so that we can provide the highest quality of naval service possible for each tax dollar that we have as a resource.

PERSONNEL

In the area of personnel, I am so proud of the outstanding men and women of the Navy Department. We simply have the finest men and women serving in the Navy Department today that we have ever had. It is no secret that in the last few years we have had some difficult problems and challenges in that regard. We all know that there was major adverse publicity a few years ago with respect to very poor behavior on the part of some of our people. We all know about a major cheating scandal we had at the Naval Academy just a few years ago. However, we have addressed those issues and attacked them.

A recent report from an outside group, led by Adm. Stansfield Turner and the president of Goucher College, showed that the Naval Academy is, indeed, fulfilling its mission today. We have attacked the problem with respect to the behavior of our people, with training required by every one of our people, education, to emphasize our core values of honor, courage, and commitment to ensure that our sailors and marines treat their shipmates with dignity and respect. I am very proud of the progress that we have made in that regard. It is something we need to continue to work on, and, indeed, we are.

We have been very innovative with things like the battle stations for our recruits at Great Lakes, and the crucible that the Marine Corps is using at Parris Island and San Diego, to enhance the training for our people. We made significant progress with diversity in our officer ranks, and I am proud of that.

Our vision for the future is one that is bright. We are focused on our "Forward from the Sea" vision. This is something that we produced several years ago, in 1994, but it is the right vision. We haven't tried to reinvent ourselves and change that every 2 years. It is the right vision, and we are moving forward, moving forward with it.

We are committed to things like the revolution in military affairs and the revolution in business affairs, to bring things on like information technology for the 21st century, network centric warfare, and cooperative engagement capability.

We are thinking outside the box, utilizing things like the Navy's fleet battle experiment, and the Marine Corps warfighting lab, things like the Hunter Warrior, Urban Warrior. We are moving forward and preparing this 911 force of the Navy Department for the 21st century.

PROGRAMMATICALLY

Mr. Chairman, I am proud of the budget that we have presented to this committee. It's a solid plan, and I seek your support for it. I would like to emphasize our priorities. F/A-18E/F Super Hornet was our top priority last year, it is again this year. We are asking for funding of advanced procurement for CVN-77. It is very important that we move forward with that, and DD-21, a land attack surface ship for the 21st century, of revolutionary importance. The intercontinental missile defense, the V-22, the AAV, these are all programs for which we ask your support.

We face challenges in readiness, retention, and recruiting. These are indeed challenges we are addressing, and we will, indeed, address them for the future. There is no question that the economy has been strong, and has complicated issues with respect to retention and recruiting.

Mr. Chairman, I ask for your very strong support and the support of this committee for the emergency supplemental that is before this body. We simply cannot deal with any offsets with respect to that. We sincerely request your support for the emergency supplemental.

Similarly, we have a reprogramming request before this committee of \$220 million for personnel issues, and we would ask for your support for that.

We simply have too much infrastructure, and I would encourage this body to support an additional round of base realignment and closure. If we are spending money on things that we do not need, like too much infrastructure, then we do not have adequate resources to deal with some of the issues that you raise with respect to recapitalization and personnel.

Finally, Mr. Chairman, one additional area that I would like to ask for the support of this body is the Law of the Sea Treaty. I am concerned that the United States is not a party to the treaty. This absence is incompatible with our Department's active engagement and leadership in maritime affairs, and has potentially negative effects for the credibility of our overall national maritime policy. The treaty, in its improved current form, is a winning proposition for the United States, and I ask each of you to support its ratification at the earliest opportunity.

PREPARED STATEMENT

In closing, Mr. Chairman, I would just like to thank you again and thank this committee for the support you have provided the Department of the Navy. On behalf of the sailors, marines, and civilians of the Department of the Navy it is my great honor to represent, I thank you very much for your support, and ask for your continued support. We look forward to working with you, and I look forward to responding to your questions. Thank you.

Senator STEVENS. Thank you, Mr. Secretary. We should be finished with the reprogramming on the personnel items this week. [The statement follows:]

PREPARED STATEMENT OF JOHN H. DALTON

Mr. Chairman, Senator Inouye, Distinguished members of the Committee. It is a pleasure for me to address you for the fifth year on the state of the United States Navy and Marine Corps.

America's forward-deployed naval forces are engaged around the world on a daily basis to carry out the National Military Strategy. Our forces are shaping the international environment, responding to the full spectrum of crises, and preparing now for an uncertain future. There is an enduring need for the forward presence of our Navy-Marine Corps Team. That need was validated by Secretary Cohen in his Quadrennial Defense Review, the report of the National Defense Panel and the reality of day-to-day global involvement of our Sailors and Marines.

Our Navy and Marine Corps in the Arabian Gulf are demonstrating today the relevance of forward-deployed naval forces. In a region where land basing options are limited, our two carrier battle groups and one amphibious ready group on station there are a powerful symbol of American resolve. I believe that resolve, backed up by the awesome strike potential of our ships and aircraft, played a major role in the latest agreement between Iraq and the United Nations. As Winston Churchill once said, "A warship is (indeed) the best ambassador."

The staying power of our forward-deployed expeditionary forces will also be crucial as we maintain our current force level in the Arabian Gulf for the foreseeable future. America's resolve to do the right thing does not have an expiration date, and the Navy-Marine Corps Team remains up to the task. We will remain ready to respond, anytime—anywhere.

I want to refer back, briefly, to 1992. Where we have been as a Department since that time illustrates how we are postured now, and for the future. We began, in 1992, a continuous process of transformation with publication of "...From the Sea", which reflected the dramatic change in the international security environment.

Our transformation process continues today, exploiting technologies from the Revolutions in Military and Business Affairs to give our forces the power and efficiency to dominate the battlefields of tomorrow. It is a process of innovation and growth which leverages the unmatched power, timeliness and operational independence of aircraft carrier battle groups and amphibious ready groups.

Not only am I immensely proud of where we stand today, but I believe we have a clear, forward-looking vision in place that will guarantee the right naval forces for the future.

Certainly, the future holds great challenges for the Navy and Marine Corps. The unrelenting operational demands on our forces and our people are threatening to diminish our readiness. While we have not seen declines in readiness in our deployed forces, the overall tempo of operations is beginning to weaken our ability to train the forces which will follow them on station. We must ensure adequate resources, training and quality of life initiatives to maintain the readiness of our Sailors, Marines and civilians.

We will need strong, positive leadership and teamwork now, by this Department and by the Congress, to ensure our naval forces will continue to be just as ready in 2010 and 2020. I want to discuss some of the budget and program issues that are important to the future of the Navy and Marine Corps.

First, the budget. We have made a concerted effort over the past year to improve what is already an active, engaged process for the budget, both within the Department of the Navy, and with Congress. I believe, as a result, we have a positive relationship which makes our tough choices more clear, and I thank each of you for making that relationship a healthy reality.

With regard to modernization efforts, our programs will continue to harness the potential of the Revolution in Military Affairs (RMA). The Department of the Navy is at the leading edge of this effort, actively embracing strategic concepts such as information warfare, cooperative engagement capability, urban warfare, and network-centric warfare.

We are encouraging the creation of innovative concepts, through the Navy's Fleet Battle Experiments, the Marines' Warfighting Laboratory, the upcoming Navy Warfare Development Command at Newport, as well as through active leadership to stimulate ideas from within the force.

The revolution in military affairs is being aggressively coupled with the Revolution in Business Affairs (RBA) by the Department of the Navy. We are doing so by streamlining processes in procurement and acquisition, support services and logistics, through the use of commercial off-the-shelf technology, and by plans to reorganize and reduce our infrastructure. These programs will guarantee future savings, but they require dedicated funds to allow us to capitalize on these revolutions.

Our major modernization programs are on track, and I thank you for this committee's active support. We have forwarded a plan for accelerated procurement of CVN 77, which will be the first new carrier of the 21st century, a dramatically advanced platform, and will provide the vital bridge to our next generation carrier, CVX.

The F/A-18 E/F Super Hornet promises a great future for carrier-based aviation. The over-publicized wing drop problem has been managed well and we are now in the process of selecting the best fix among several workable options to fully correct it. Our test plan is on track to finalize our solution next month. This will allow us to incorporate our fix into all production aircraft. Super Hornet represents what we demand for our carriers—the best strike asset we can afford.

The Joint Strike Fighter (JSF) is an integral part of our forward-looking plan for naval aviation. I have made visits to both design teams, and I am confident a healthy competition is in place that will guarantee the Navy and Marine Corps the right aircraft for our next generation strike aircraft needs. Our goal is to get the most modern aircraft to the fleet as quickly and affordably as possible. Super Hornet and JSF do exactly that.

The Surface Combatant 21 family, led by its first member, the multipurpose DD 21, with its focus on land attack, will help revolutionize the Navy's shipbuilding and warfighting strategy. This modern surface combatant represents an exciting mainstay for our battle groups of tomorrow, because of the tremendous leap in effectiveness it will bring, at significant manpower and cost savings.

Another exciting program that we continue to develop is the Theater Ballistic Missile Defense (TBMD) capability that is embedded in our Aegis cruisers and destroyers. These powerful ships are a promising first-line of defense for our forward-deployed joint forces.

Our shipbuilding plan, overall, produces technologically superior ships such as DDG 51, LPD 17 and the New Attack Submarine. The average rate of production in the future years defense plan (FYDP) is adequate in the near term to support the projected fiscal year 2003 force of about 300 ships. However, beyond the FYDP, this rate of production will not permit us to maintain the required ship and aircraft inventory.

The operational commitments undertaken by the Navy and Marine Corps today require a certain force level to satisfy both personnel optempo concerns and worldwide presence missions. Our rate of new ship and aircraft construction must recap-

talize the force in the long term to maintain this balance. We need to ensure that, in the future, adequate modernization funding is provided in order to fulfill tomorrow's tasking.

The Navy and Marine Corps' worldwide commitments today include the extended operations in Bosnia. In order to continue our forward-presence in this critical theater, we will need your support for a supplemental budget request to meet additional costs for the Bosnia operation in 1998.

Let me turn now to what is my favorite topic: the Sailors, Marines and civilian employees of the Department of the Navy. They are the most proud, professional, diverse and intelligent this Nation has ever known. They are the primary reason we remain the world's greatest Navy and Marine Corps.

We ask a great deal of our people, and we continue to ask more. Our forces today must be ready for a vast array of mission tasking, across the full spectrum of combat and non-traditional uses of military force. As a result, our people are warriors in the classic sense, and compassionate and discriminate in the human sense. This requires time, training and a truly multi-faceted and motivated Sailor or Marine.

We are proud of the tailored programs we have developed to transform the best of our society into Sailors or Marines. New leadership development programs at boot camp—"Battle Stations" for the Navy, and the "Crucible" for the Marine Corps—are already forging smarter Sailors and Marines, and giving them the skills and the mindset to capitalize on the Revolution in Military Affairs of which they will be a vital part.

On the recruiting front, we continue in our efforts to attract highly qualified and culturally diverse officer and enlisted candidates. This is a challenging time: for the first two months of fiscal year 1998, Navy recruiting accessed only 91 percent of goal. If that trend continues through fiscal year 1998, it may lead to an annual accession goal shortfall of 4,000 personnel. On the Marine Corps side, we are on track with our accession goals.

We are addressing the challenge for Navy recruiting head-on with a number of new initiatives, including direct involvement by our top leadership. I have personally prepared a letter to go to over 20,000 high school principals around the country to solicit their support for quality recruits. I would ask that wherever possible, each of you use your leadership position on this committee to encourage your peers when you are home, to mention the opportunities available in the Navy and Marine Corps.

Retention, also, is a critical area of focus for us. Our people are our greatest resource, and indeed, my highest priority. We will continue to listen carefully to the concerns of our Sailors, Marines and civilians, and we will continue to search for innovative ways to improve health care, retirement, deployment schedules, housing and other areas. We must work together in continuing to attract and retain the highest quality people for our Navy-Marine Corps Team.

Success in the two critical areas on which I have focused—modernization of the force, and taking care of our people—requires significant investment, now. Much of that investment is in place with our aggressive initiatives to improve efficiency in everything we do. But much more will have to come from a reduction in our infrastructure. We simply have too much infrastructure for the size of the force we envision in the next few years. To continue to operate this way is not good business.

The Department of the Navy will continue to make the tough choices that it must in the budget process. I ask each of you to help us do the same, to reduce our overhead, anywhere that we can, primarily through additional base closures in the years ahead.

One additional area I must mention is the Law of the Sea Treaty. I am concerned that the United States is not a party to the Treaty. This absence is incompatible with our Department's active engagement and leadership in maritime affairs and has potentially negative effects for the credibility of our overall national maritime policy. The Treaty, in its improved, current form, is a winning proposition for the U.S., and I ask each of you to consider its ratification at the earliest opportunity.

In closing, let me say that I am tremendously proud to serve as Secretary of our Nation's Navy-Marine Corps Team. We are a forward-thinking, forward-looking organization: we are both America's premier fighting force, and a positive influence for sustaining peace on the world stage.

We currently have a near-continuous presence in four major regions: the Mediterranean Sea, the Arabian Gulf/Indian Ocean, the Western Pacific and the Caribbean. On any given day of the year, day-in and day-out, over half of our Navy-Marine Corps Team is underway, at sea. A major challenge we face for future operations is ensuring that we can continue to meet this operational tempo required of our forces—both in terms of people and equipment.

Let me repeat that our vision of the way ahead is sound, and is in line with the Nation's fundamental interests. But the means to get there are becoming less and less clear. I believe, as I know you do, that we have the appropriate vision, and it is worth fighting for. I will say as I did earlier, we must ensure adequate resources, training and quality of life initiatives to ensure our Sailors and Marines remain forward-deployed and ready, anytime anywhere.

Thank you for your leadership, enthusiasm and support for our Sailors, Marines and civilians who stand the watch. I appreciate the opportunity to appear before you today. I look forward to responding to your questions.

DEPARTMENT OF THE NAVY 1998 POSTURE STATEMENT

This posture statement reflects the continuing process of transformation initiated by the Department of the Navy in 1992 with publication of "...From the Sea"—a bold step taken to ensure the Navy-Marine Corps Team remained at the forefront of America's defenses in a rapidly changing world. Since then, "...From the Sea" has been refined and expanded upon with publication of "Forward... From the Sea" (1994), "Operational Maneuver... From the Sea" (1996), and "The Navy Operational Concept" (1997).

Our transformation process continues today, exploiting technologies from the Revolutions in Military and Business Affairs to give our forces the power and efficiency to dominate the battlefields of tomorrow. By doing so, we are well on the way to achieving our vision of highly effective, forward-deployed naval forces capable of shaping the peace, responding to the full spectrum of crises, and preparing for future threats. It is a process of innovation and growth which leverages the unmatched power, timeliness, and operational independence of aircraft carrier battle groups and amphibious ready groups which serve as the foundation of our Nation's forward defense.

The future holds great challenges for the Navy and Marine Corps, both operationally and organizationally, as we strive to protect our Nation's strategic investment in the world's finest naval force. We must ensure adequate resources, training, and quality of life initiatives maintain the readiness of our Sailors, Marines and civilians, and allow them to continue their heritage of Honor, Courage and Commitment.

This posture statement illustrates the framework adopted by the Department of the Navy to achieve our vision of 21st century excellence, strengthening the unrivaled Navy-Marine Corps Team so vital to America's present—and future—security.

JOHN H. DALTON,
Secretary of the Navy.

ADMIRAL J.L. JOHNSON, USN,
Chief of Naval Operations.

GENERAL C. C. KRULAK, USMC,
Commandant of the Marine Corps.

THE NAVY-MARINE CORPS TEAM

Answering the Nation's Call: Anytime, Anywhere

Forward-deployed and combat ready, naval forces embody the President's National Security Strategy for a New Century. Our nation recognizes the vital role of military engagement in supporting U.S. national interests and objectives. Because they are forward deployed every day, naval forces are a critical component of our nation's global engagement strategy. As delineated in the National Military Strategy, they provide the essential tools to shape the international environment, to respond to the full range of crises, and to prepare for an uncertain future.

We live in a complex and ever-changing world. The growth during this decade of democracies and free market economies is most encouraging. Yet nationalism, economic inequities, and ethnic tensions remain a fact of life and challenge us with disorder—and sometimes chaos. As both positive and negative changes take shape, the United States has become what some call the "indispensable nation"—the only nation with the technological capability and acknowledged benevolent objectives to ensure regional stability.

The National Defense Panel recently pointed to the rapidly changing international environment and underlined the requirement for a "transformation strategy," a coherent plan for creating the forces the United States will need to deal with the challenges ahead. The Navy-Marine Corps team recognized the need for such a strategy more than five years ago, and began to transform itself with the seminal white paper "...From the Sea." That white paper, its companion "Forward... From the

Sea,” and the concepts outlined in “Operational Maneuver...From the Sea” and “Forward...From the Sea: The Navy Operational Concept” changed the direction of the Department of the Navy dramatically and began just such a transformation strategy.

The focus of this strategic concept is to influence events ashore directly and decisively from the sea—anytime, anywhere. The strategic concepts embedded in “...From the Sea” and “Forward...From the Sea” easily adapted to the Quadrennial Defense Review tenets of shaping the international environment, responding to the full spectrum of crises, and preparing now for an uncertain future. Shaping and responding require presence—maintaining forward-deployed combat-ready naval forces. Being “on scene” matters! It is and will remain a distinctly naval contribution to peacetime engagement. As sovereign extensions of our nation, naval forces can move freely across the international seas and be brought to bear quickly when needed. The transformation that the Navy-Marine Corps team has begun seeks to build on these enduring attributes of naval power and ensure that they remain our strengths in the next century.

The balanced, concentrated striking power of aircraft carrier battlegroups and amphibious ready groups lies at the heart of our nation’s ability to execute its strategy of peacetime engagement. Their power reassures allies and deters would-be aggressors, even as it demonstrates a unique ability to respond to a full range of crises. From their forward-deployed locations in the Mediterranean, the Arabian Gulf, the Western Pacific and the Caribbean, naval forces offer the National Command Authorities (NCA) a wide range of options—in effect a “rheostat” that can be dialed up or down to put the appropriate forces on scene when needed whatever the evolving crisis.

Operating in international waters and unfettered by constraints of sovereignty, naval forces are typically on scene or the first to arrive in response to a crisis. The inherent flexibility of naval forces allows a minor crisis or conflict to be resolved quickly by on-scene forces. During more complex scenarios, naval forces provide the joint force commander with a full range of options tailored for the specific situation. From these strategic locations, naval forces shape the battlespace for further operations.

Tradition and Teamwork: Hallmarks of Success

Tradition is embedded in the Navy-Marine Corps team. As we look toward the new millennium, we emphasize our traditional core values of honor, courage, and commitment. These timeless ideals remain at the center of everything we do.

Teamwork is another Navy-Marine Corps trait. It ranges from teamwork within individual units, to cooperative efforts among units, to coordination throughout the Department of the Navy. The Navy and Marine Corps also can integrate forces into any joint task force or allied coalition quickly.

Charting a Course for Future Success

The Department of the Navy is no stranger to innovation or to “Revolutions in Military Affairs.” It has undertaken three such revolutions in the past one hundred years: the first occurred in the 1890’s; another with carriers and amphibious warfare in the 1920’s and 1930’s; and the third with the ballistic missile submarine force in the 1960’s.

In “...From the Sea” and “Forward...From the Sea,” we have sown the seeds of yet another revolutionary change in naval power, one that will ensure our continued contribution to our national security in a changing world. It revolves about an easily understood axiom: the purpose of naval forces is to influence events ashore directly and decisively from the sea—anytime, anywhere.

NAVAL EXPEDITIONARY FORCES: FULL SPECTRUM CAPABILITY

The President’s National Security Strategy for a New Century identifies engagement as a critical ingredient in maintaining peace and stability around the world. Our National Military Strategy specifies three tasks: shape the international environment, respond to the full spectrum of crises, and prepare now for an uncertain future.

Shaping the International Environment

Naval forces project U.S. influence and power abroad in ways that promote regional economic and political stability, which in turn serves as a foundation for prosperity. Naval forces remain continually engaged around the world as a visible tool of U.S. foreign policy. The power-projection capabilities of our aircraft carrier battle groups and amphibious ready groups provide a potent response to aggression. Our forces shape the local security calculus by being there—a visible, powerful presence

with a full range of options. These same forces reassure allies of our commitment to regional peace and stability. Routine exercises with allied forces enhance coalition interoperability and add to our collective ability to respond to attack. Sailors and Marines do this every day of the year. Nearly one-third of Navy and Marine Corps operational forces—more than 60,000 men and women and 100 ships—are deployed around the world. Carrier battle groups and amphibious ready groups provide near-continuous presence in four major deployment areas: the Mediterranean Sea, the Arabian Gulf/Indian Ocean, the Western Pacific, and the Caribbean. In Japan, we anchor regional stability with the forward-stationed *Independence* (CV 62) Battle Group and the *Belleau Wood* (LHA 3) Amphibious Ready Group. Closer to home, the Navy's Western Hemisphere Group is shaping the environment by strengthening the bonds to South and Latin American allies. Each of these strategic locations provides a launching point for quick reaction by naval forces to crises virtually anywhere.

Peacetime engagement is our primary means of shaping the international environment; it is a traditional role for the Navy and Marine Corps. Our forces participate in an array of engagement activities, becoming forces to be reckoned with in the regional security environment. They participate in a complete range of shaping activities—from deterrence to coalition building—establishing new friendships and strengthening existing ones during port visits around the world. These visits promote stability, build confidence, and establish important military-to-military relationships. In addition, port visits provide an opportunity to demonstrate good will toward local communities, further promoting democratic ideals.

Deterrence is another shaping factor. Because foreign nuclear weapons remain a threat, we continue our vigilant efforts to discourage their proliferation and use, along with other weapons of mass destruction. This nation must maintain a credible nuclear-deterrent capability. Our ballistic missile submarine (SSBN) fleet is a key component of peacetime deterrence. The reliability and security of their command-and-control systems, and the superb accuracy and inherent flexibility of their weapons combine to convince any adversary that seeking a nuclear advantage—or even nuclear parity—would be futile. Stealth and mobility make this force the most survivable element of our strategic nuclear triad.

However, we seek to deter more than simply the use of weapons of mass destruction. We also seek to prevent aggression with conventional forces. While the total capability of our armed forces is a factor in such conventional deterrence, it is the visible, forward-deployed naval expeditionary forces that have perhaps the most critical role. Naval forces act as local extensions of our sovereign national territory, able to maneuver in international waters unencumbered by the political constraints that may limit other forms of military power. Routine naval deployments signal both friend and foe of our commitment to peace and stability in the region. This demonstrated ability to respond rapidly to crises—and to fight and win should deterrence fail—offers a clear warning that aggression cannot succeed. Moreover, the ability of the forward-deployed forces to protect local allies and secure access ashore provide a guarantee that the full might of our joint forces can be brought to bear. Taken together these visible U.S. capabilities foreclose opportunities for aggression and help shape a stable local peace.

One key element of this conventional deterrence is helping allies to help themselves. The Navy and Marine Corps execute a full exercise schedule with nations throughout the world. The expeditionary nature of our forces promotes interaction with the sea, land, and air forces of numerous allies. Each exercise, large or small, directly contributes to successful coalition building. Credible coalitions play a key role in deterring aggression and controlling crises. Our routine interactions promote trust and confidence, and encourage measures that increase both our security and that of our allies.

The Navy and Marine Corps role in both conventional and strategic deterrence, including laying the foundations for future coalitions, is a critical ingredient in our national strategy of peacetime engagement. Forward naval forces truly shape our international environment every day in tension spots around our uncertain world.

Providing Options for an NCA "Rheostat"

One enduring strength of naval forces is their balance. The combined capabilities of a carrier battle group and an amphibious ready group offer air, sea, and land power that can be applied across the full spectrum of combat. They are positioned forward, able to provide an immediate, highly visible crisis-response capability, but they can also be unobtrusive by operating beyond the horizon or from an undetected submerged position. This balance and flexibility provides the National Command Authorities (NCA) a range of military options that is truly unique.

Forward presence provides an immediate response capability that prevents an aggressor from achieving a *fait accompli*. On-scene naval forces not only shape the battlespace—they demonstrate our capability to halt aggression long before adversaries can achieve their objectives. While enhancing deterrence, naval forces simultaneously shift the military balance in our favor by offering numerous options in response to aggression. We force adversaries to consider multiple responses by injecting uncertainty into their planning, disrupting their ability to execute a coherent campaign, and eroding their confidence in the likelihood of success. Naval forces can provide security and employ unique operational and logistic capabilities, allowing civil initiatives to work. Options may range from establishing a no-fly zone to ensuring delivery of humanitarian supplies.

The flexible, rapid movement of naval forces at the onset of any crisis is an ideal way to signal our nation's commitment. Our quick-reaction capability, combined with self-sustaining logistics, enables the Navy-Marine Corps team to be on scene at the outset and to remain as long as necessary to stabilize the situation. The advantage of our expeditionary nature is amplified when allied nations are reluctant or unable to support crisis-response efforts. Naval forces provide numerous options to the National Command Authorities, including: sea and area control; naval gunfire for fire support; interdiction and deep strike missions; amphibious operations; special warfare operations; and Marine air-ground task force operations ashore. The mobility and agility of naval units make them the force of choice in a wide variety of situations. The presence of naval forces in the early stages of a crisis reminds a would-be aggressor of the overwhelming power that can be projected from the continental United States.

There are numerous examples of the Navy-Marine Corps team providing instantaneous real-world support of the National Command Authorities. In mid-1997, the *Nassau* (LHA 4) Amphibious Ready Group (ARG), with the 26th Marine Expeditionary Unit (Special Operations Capable) (MEU(SOC)) embarked, and the *Kearsarge* (LHD 3) ARG, with 22d MEU(SOC) embarked, planned sequential noncombatant evacuation operations in the former Zaire, Sierra Leone, and Albania. The geographic separation and unique requirements of each event clearly demonstrated the flexibility of naval forces. Later in 1997, when Iraqi intransigence resurfaced, the *Nimitz* (CVN 68) Carrier Battle Group (CVBG) rapidly repositioned from the Pacific to the Arabian Gulf. Soon afterward, the *George Washington* (CVN 73) CVBG relocated from the Mediterranean Sea to the Arabian Gulf, to emphasize U.S. resolve. Partially in response to these movements, and in concert with vigorous diplomatic efforts, the Iraqi government agreed to terms that allowed U.N. inspectors, including Americans, to return to work.

In the early stages of a crisis, our combat capabilities can defend allies and their critical ports and airfields, needed for the arrival of follow-on forces from the continental United States. In the future, our emerging theater air-and-missile-defense capabilities will enhance this protective shield for joint forces and allies—unobtrusively, from the sea. The mobility of these systems, currently being developed around the existing Aegis surface combatant fleet, will be a critical force multiplier. Our dynamic pursuit of area and theater-missile defense continues.

The ability to fight and win against any adversary is vital to the National Security Strategy. Throughout the joint campaign, naval forces will capitalize on our command-and-control system to concentrate combat power from dispersed, networked forces and project power far inland. Initial operations by swiftly responding naval forces often can halt aggression early in the conflict. In those cases where aggression is not contained immediately, our initial operations will be critical in enabling a joint campaign to begin. The Navy's ability to dominate the littorals ensures sea and area control, while defeating enemy area-denial threats. Naval forces also can assert maritime superiority and provide strategic sealift to transport joint and allied forces into theater. Our ability to counter enemy area-denial threats effectively—with potent information warfare, power projection, and force-protection capabilities—increases our decisive impact early in a joint campaign.

Naval operations are critical elements of the joint campaign. We deliver precision naval fire support—strike, force interdiction, close air support, and shore bombardment. We seize the advantage of being able to operate on and from the sea. Using high-tech information-processing equipment, we achieve superior speed of command by rapidly collecting information, assessing the situation, developing a course of action, and executing the most advantageous option to overwhelm an adversary. Throughout the joint campaign we keep the vital seaborne logistics pipeline flowing. And, when the joint campaign is over, naval forces can remain on scene for long periods to enforce sanctions and guarantee the continuation of regional stability.

Preparing for an Uncertain Future

Today, the Navy and Marine Corps enjoy maritime superiority around the world. We find ourselves at a strategic inflection point, during which we can think in different ways about warfighting in the future. We have an opportunity to be innovative and create new capabilities to overcome the threats that lie ahead. We must embrace change and make it our ally. The Department of the Navy is committed to exploiting emerging technologies, concepts, and doctrine to guarantee the military superiority vital to our nation's global leadership. In addition, we are examining concepts that will capitalize on our national capabilities, going beyond jointness and the interagency network. These concepts envision bringing together all elements of national power including academia, laboratories, financial institutions, industry, communications, humanitarian organizations—to meet the challenges of the 21st century.

Similarly, we must acknowledge today's realities. Although Navy and Marine Corps deployed unit readiness remains high, a combination of constrained resources and the pace of operations required to execute NCA tasking and fulfill the requirements of the Unified Commands are affecting the readiness of our non-deployed forces. In concert with Congress, we must find ways to address this situation. We must and will take advantage of the ongoing revolutions in military affairs and business affairs to achieve our goals.

Revolution in Military Affairs

A revolution in military affairs (RMA) occurs when new concepts of warfare combine with new technologies to achieve a quantum leap in military capabilities. Carrier aviation, amphibious warfare, and ballistic missile submarines are vivid examples of such previous successes. We embarked on a similar innovative path with the 1992 publication of "...From the Sea", and further refined our strategic vision with "Forward...From the Sea" in 1994. The revolution has continued in the past two years with publication of the Navy's "Operating Forward...From the Sea", and the Marine Corps' "Operational Maneuver From the Sea" (OMFTS). These operational concepts show how the naval service will execute its strategic concept and maintain its operational primacy into the 21st century.

The Navy and Marine Corps are involved actively in developing concepts that will combine in the future to attain revolutionary capabilities. These efforts include information warfare, precision strikes from the sea, Cooperative Engagement Capability (CEC), Network-Centric Warfare, theater ballistic missile defense, and Ship-to-Objective Maneuver (STOM). These concepts enhance our broad mission areas of sea and area control, power projection, presence, and deterrence. Our revolution is appropriate for the times.

Revolution in Business Affairs

An RMA must combine new concepts, technologies, organizational structures, doctrine, and programs. Modernization and recapitalization, using dedicated funds, are necessary to exploit fully the RMA. We seek to find some of these funds by instituting a revolution in business affairs. Modernizing our force structure to better reflect tomorrow's challenges and streamlining our support services to make them more efficient are two methods we are using to realize additional fiscal savings for reallocation to support more robust modernization efforts.

The importance of achieving these savings cannot be overemphasized. Our shipbuilding plan produces technologically superior ships, such as *Arleigh Burke* (DDG 51), *San Antonio* (LPD 17), the New Attack Submarine (NSSN), and CVN-77, and the average rate of production in the future years defense plan (FYDP) is adequate in the near term to support the projected fiscal year 2003 force of about 300 ships. However, beyond the FYDP, this rate of production will not permit us to maintain the required ship and aircraft inventory. The operational commitments undertaken by the Navy and Marine Corps today require a certain force level, to satisfy both personnel tempo concerns and worldwide presence missions. Our rate of new-ship and aircraft construction must recapitalize the force in the long term to maintain this balance. We need to ensure that, in the future, adequate modernization funding is provided in order to fulfill tomorrow's tasking.

The Navy-Marine Corps team is the finest maritime force in the world today. To maintain our preeminence, we must continue our investment in technological advances. Indeed, the rapid pace at which technology proliferates around the world presents us with new challenges. In the information age, potential adversaries will acquire knowledge of our systems and capabilities much faster than ever before. In order to remain on the leading edge of technological innovation, we must undertake a revolution in the way we procure systems and place them in the fleet—a revolution in business affairs. Further, we must learn from the successes of others, and

prepare to manage acquisition in a way that makes the most of every dollar spent. The transformation of our forces must integrate the strengths of our people with emerging technologies.

Institutionalizing Innovation

Both the Navy and the Marine Corps are moving swiftly to institutionalize the generation of innovative concepts and ideas. The CNO's Strategic Studies Group (SSG) is dedicated to developing revolutionary naval warfare concepts 15 to 20 years from today. The SSG fellows combine analysis of naval campaigns and scientific methodology, to identify future warfighting concepts that offer an order-of-magnitude improvement over current capabilities. This continuing effort complements Fleet Battle Experiments, which examine future concepts and doctrine 5 to 10 years from now. The Marine Corps' Warfighting Laboratory (MCWL) and the Sea Dragon series of experiments also are creating the necessary focus on new concepts and doctrine.

In 1997, the MCWL conducted the first in a series of Advanced Warfighting Experiments (AWE's), Hunter Warrior, and is currently preparing for the second AWE, Urban Warrior. The Marine Corps capitalized on the innovative momentum generated through the MCWL by creating the Office of Science and Innovation (OSI) on August 15, 1997. The mission of the OSI is to develop visions focused on the development of policies and strategies associated with the exploitation of scientific innovation, modeling, simulation, and technology, in order to enhance Marine warfighting capabilities. The OSI has taken the lead in incorporating the successes of the MCWL into the Marine Corps Combat Development System.

In 1998, the Navy will establish the Navy Warfare Development Command in Newport. This new command will combine the expertise of the Naval War College, Navy Doctrine Command, and the CNO Strategic Studies Group into an organization capable of integrating concept development, experimentation, and doctrine within the framework of the Navy strategic vision. This organization will formalize a process for rapid generation and experimentation of innovative concepts. It also will maximize the unique abilities at the Naval War College and empower the doctrine development process.

Our Navy and Marine Corps are focused on the future, building upon the firm foundation of "...From the Sea" and "Forward...From the Sea". We will maintain carrier battle groups and amphibious ready groups forward, shaping the international environment and creating conditions favorable to U.S. interests and global security. From their forward locations, our forces are positioned to respond to a full range of crises and contingencies, and protect our national interests. Our continued emphasis on innovative thinking is preparing us well for an uncertain future.

OPERATIONAL PRIMACY: 1997 IN REVIEW

Throughout 1997, the Navy and Marine Corps maintained an average of 119 ships, 62,300 Sailors, and 23,300 Marines deployed overseas in support of forward presence missions, training exercises, and operations in more than 100 countries. Sea-based and self-sustained, naval forces take advantage of bilateral training opportunities in countries with limited infrastructure or ability to support large scale military deployments. These training exercises offer emerging democracies a unique opportunity to train with U.S. forces. Forward-deployed expeditionary forces also give theater commanders a flexible, responsive force that can be positioned in key trouble spots for extended periods, as a visible example of U.S. resolve and commitment. During 1997, the Navy-Marine Corps team proved time and again that sea-based forces are the premier forward presence asset.

Operations

Arabian Gulf/Red Sea

Iraq.—Operation Southern Watch (August 1992–present). Navy, Marine, and Air Force units continue to enforce the "no-fly" zone over Iraq. Naval operations in 1997 included extensive Navy and Marine aircraft sorties from the aircraft carriers *Kitty Hawk* (CV 63), *Theodore Roosevelt* (CVN 71), *Constellation* (CV 64), *John F. Kennedy* (CV 67), *Nimitz* (CVN 68), and *George Washington* (CVN 73).

Operation Northern Watch (May 1997–present). Navy and Marine EA-6B squadrons are operating to enforce the no-fly zone over northern Iraq.

CVN Thrust (October 1997–present). In response to Iraq's expulsion of U.N. weapons inspectors, *Nimitz* (CVN 68) accelerated its transit to the Arabian Gulf, while *George Washington* (CVN 73) swung to the Gulf from deployment in the Mediterranean to provide a formidable force with massive strike capability.

Saudi Arabia.—Operation Desert Focus (July 1996–present). In the aftermath of the Khobar bombings, the First Marine Expeditionary Force (I MEF) provided counterintelligence team support for force protection to Joint Task Force-Southwest Asia (JTF-SWA). The deployment was extended into fiscal year 1997 because of the continued terrorist threat.

Bahrain.—Reinforcement of Naval Security in Bahrain (April–June 1997). A reinforced platoon of the Fleet Antiterrorism Security Team (FAST) Company deployed in response to a Navy Central Command (NavCent) request immediately following indications and warnings of terrorist threats. Naval Reserve Mobile Inshore Undersea Warfare Units deployed to Manama, Bahrain, to augment port surveillance and security.

Maritime Interception Operations.—(August 1990–present). Surface combatants, amphibious ships, and maritime patrol aircraft continue the maritime intercept operations in the Arabian Gulf in support of U.N. sanctions against Iraq. Almost 25,000 queries, 11,000 boardings, and over 600 diverts of shipping have occurred since the operation began. U.S. Navy ships are the principle tool for enforcing the U.N. mandated sanctions against Iraq.

Africa

Democratic Peoples Republic Of The Congo (Formerly Zaire).—Operation Guardian Retrieval (March–June 1997). As conditions in Kinshasa deteriorated, *Nassau* (LHA 4), with elements of the 26th Marine Expeditionary Unit (Special Operations Capable) (MEU(SOC)) on board, was dispatched off the coast of Zaire. The remainder of the 26th MEU(SOC) Forward on board *Nashville* (LPD 13) and *Pensacola* (LSD 38) remained in the Mediterranean Sea to provide strategic reserve for the NATO Stabilization Force (SFOR) in Bosnia. The 26th MEU(SOC) assumed the main effort of a planned noncombatant evacuation operation named Joint Task Force Guardian Retrieval. *Kearsarge* (LHD 3) and the 22d MEU(SOC) deployed two weeks early to relieve *Nassau* and the 26th MEU(SOC); the former assumed responsibility for the Joint Task Force (JTF) mission on May 2, 1997.

Sierra Leone.—Operation Noble Obelisk (May–June 1997). As Operation Guardian Retrieval finished, the deteriorating security situation in Freetown, Sierra Leone, required *Kearsarge* (LHD3) and the 22d MEU(SOC) to relocate quickly to another crisis operating area. As commander for JTF Noble Obelisk, the 22d MEU(SOC) evacuated 451 American citizens and 2,059 third-country nationals in four days to *Kearsarge*. All evacuees were later transferred to Conakry, Guinea, for processing.

Europe

Bosnia.—Operation Deliberate Guard (December 1996–present). Earlier Bosnian-related operations (Operations Deny Flight and Decisive Edge) transitioned to Operation Deliberate Guard in support of the Stabilization Force (SFOR). Carrier and shore-based aviation squadrons continue joint and combined flight operations to enforce the “no-fly” zone over the Republic of Bosnia-Herzegovina. Additional Navy and Marine F/A-18 and EA-6B aircraft, forward-deployed to Aviano, Italy, provide suppression of enemy air defense, close air support, and electronic warfare capabilities to the SFOR. Naval Mobile Construction Battalion Seabees and Marines augment Army civil affairs brigades to support specific peacekeeping operations. Nearly 500 Naval Reserve personnel were recalled to support Bosnian operations.

Adriatic Sea.—Operation Joint Guard (December 1996–present). During four of five operational phases, SFOR designated deployed MEU(SOC)’s as the reserve in support of the NATO-led implementation of the Dayton Peace Accords. In March 1997, *Nassau* and the 26th MEU(SOC) returned to the Adriatic Sea as a supporting force after responding to the crises in the former Zaire and Sierra Leone. *Nassau* was later relieved by *Kearsarge* and the 22d MEU(SOC). During 1997, Navy maritime patrol aircraft supplied reconnaissance support to area commanders. VMU-2, a Marine Corps unmanned aerial vehicle (UAV) squadron equipped with the Pioneer UAV, transmitted a video data link to Navy P-3 aircraft for further relay to the three multinational divisions. VMU-1 deployed in September 1997 to provide a video link to officials during the Bosnian municipal elections. Marine active and reserve personnel augment USCINCEUR’s effort in Bosnia.

Albania.—Operation Silver Wake (March–July 1997). U.S.S. *Nassau* (LHA 4) Amphibious Ready Group (ARG), with the 26th MEU(SOC) embarked, conducted a non-combatant evacuation operation (NEO) in Tirana, Albania. Spreading anarchy in Albania compelled the evacuation of 877 Americans and third-country nationals. Following the evacuation, Marines provided security for personnel remaining in the embassy and housing compounds. These elements were later relieved by Marine Corps Security Forces from Naples, Italy, and Souda Bay, Crete.

Caribbean and South America

Counterdrug Operations.—Active and reserve Navy ships, submarines, and aircraft continue detection and monitoring missions in the Caribbean Sea and the Atlantic and Pacific Oceans. Navy and Marine Corps personnel serve as tactical planners, analysts, and mobile training teams in drug-source countries to enhance host-nation law enforcement. Marine Corps units have also conducted 55 missions along the Southwest border, in support of domestic law enforcement agencies. Navy personnel operate and maintain re-locatable over-the-horizon radar (ROTHR) sites in Virginia and Texas, providing wide area surveillance of the transit zone. Efforts are underway to construct a ROTHR site in Puerto Rico, which will extend surveillance capabilities to the source countries. Additional surveillance is provided by a Naval Reserve E-2 radar early warning aircraft squadron established in support of counterdrug operations. The Director of Naval Intelligence maintains dedicated, maritime-focused counterdrug intelligence support and interagency coordination via multisource fusion analysis of commercial shipping and noncommercial vessels. These intelligence sources provided information to law enforcement and Department of Defense personnel.

Haiti.—New Horizons Haiti (formerly exercise Fairwinds) (April 1996–December 1997). Navy Seabees, Marine engineers, and Navy medical units supported the nation building efforts of “U.S. Support Group Haiti.” These units provided important humanitarian assistance to the Government of Haiti through the completion of engineering projects and medical support.

Cuba.—Cuban Migrant Support (August 1994–present). Marines from the Second Marine Expeditionary Force (II MEF) continue the Cuban and Haitian migrant handling, processing, and security missions in Guantanamo Bay, Cuba. Navy personnel provide medical and logistic support to the migrants. Since September 1994, as many as 40,000 migrants housed at the Guantanamo Bay Naval Facility have been repatriated.

Peru.—Operation Laser Strike (September 1996–June 1997). Marines supported the counter-drug operations of U.S. Southern Command (CINCSOUTH) with a ground mobile radar and communications team.

Asia

Korea.—Naval sea and air power forward-based in Yokosuka, Sasebo, and Atsugi, along with Marine expeditionary forces from Okinawa, continue to provide a visible and unambiguous presence around the Korean peninsula. Four at-sea training exercises were conducted with South Korean forces: Sharem 120 featured *Thach* (FFG 43), *Hewitt* (DD 966), and *Topeka* (SSN 754) in an antisubmarine exercise; MCMEX tested anti-mine warfare expertise with *Guardian* (MCM 5) and *Patriot* (MCM 7); Foal Eagle 1997 was a large-scale carrier battle group exercise centered on the *Independence* (CV 62) battle group, combatants from 3rd Fleet, and numerous support ships; Ulchii Focus Lens 1997 is a major joint and combined command and control exercise for the *Blue Ridge* (LCC 19), 7th Fleet’s command ship forward deployed in Japan. These highly beneficial exercises are integral to our ability to operate in a nearly seamless fashion with South Korean forces.

Guam.—Operation Pacific Haven (September 1996–March 1997). Navy personnel from Helicopter Combat Support Squadron Five, Naval Mobile Construction Battalion Seabees based in Guam, Marine translators, and a reinforced Marine rifle company from Okinawa supported the USCINCPAC effort of screening and processing Kurdish refugees from northern Iraq.

Korean Airlines Flight 801.—Crash Recovery Operations (August 1997). Navy helicopter units provided medical evacuation assistance to survivors to the U.S. Naval Hospital in Guam. The Navy’s medical and dental personnel were instrumental in the recovery and identification of victims. In addition, a seven-member special psychiatric rapid intervention team (SPRINT) was dispatched from the Naval Medical Center, San Diego, two days after the crash to provide counseling and emotional support for rescue workers. Seabees provided further rescue and salvage support to the National Transportation Safety Board.

Cambodia.—Operation Bevel Edge (July 1997). Marines from the Third Marine Expeditionary Force (III MEF) deployed to Utapao, Thailand, to support a USCINCPAC JTF mission. The 31st MEU(SOC) was placed on alert for a possible NEO from Cambodia.

Exercises

West African Training Cruise (WATC).—This annual deployment provides interaction between U.S. Naval forces and their host-nation counterparts for military training, expanded military-to-military relations, and to maintain familiarity with

the West African littoral environment. The Navy and Marine forces in the Whidbey Island (LSD 41) during WATC 97 also participated in UNITAS 97.

UNITAS 97.—The annual UNITAS deployment is a primary means of supporting regional stability in the Western Hemisphere. Active and reserve surface combatants and P-3C aircraft, Marine forces from II MEF, a submarine, reserve medium lift transport aircraft, and a U.S. Coast Guard cutter join to conduct multinational exercises with Venezuela, Colombia, Ecuador, Peru, Chile, Argentina, Uruguay, and Brazil, while circumnavigating the continent during a five-month period. This year, France, The Netherlands, Canada, UK, Germany, and Portugal also participated during phases of the nine-nation, 29-city deployment. These exercises often provide the only opportunity for Latin American forces to train with U.S. and other allied forces.

Partnership for Peace.—The Partnership for Peace (PfP) program continues to be the centerpiece of NATO's strategic relationship with Central and Eastern European nations. These operations, part of our bilateral military-to-military contacts program, included basic seamanship exercises and familiarization visits with the regional forces. Surface ships, aircraft, and submarines participated in many exercises in 1997 including: BALTOPS 1997, Ioklos, Briz, Posidon, and 5 other bilateral cooperative exercises which took place in the Mediterranean, Baltic, and Black Seas. These exercises are central to Sixth Fleet's participation in PfP endeavors.

Black Sea Operations.—Navy and Marine Corps units have conducted training operations with forces from Romania, Ukraine, and Bulgaria. Sailors and Marines make a major contribution to national efforts aimed at building Black Sea alliances and furthering relationships via Partnership for Peace. Through exercises such as Rescue Eagle and Sea Breeze, forward-deployed, self-sustained naval forces provide excellent opportunities for initial bilateral training with the armed forces of emerging democracies.

Baltic Challenge 97.—The second Baltic Challenge exercise involved 2,800 personnel from nine nations: Estonia, Latvia, Lithuania, Norway, Sweden, Finland, Denmark, Ukraine and the United States. Focused primarily on peacekeeping and humanitarian assistance, naval active and reserve forces demonstrated a range of capabilities that support operational objectives in Europe, including the stationing of a Maritime Prepositioning Force in the Baltic Sea. Additionally, reservists made up nearly 25 percent of the Marine Forces deploying to Estonia, showcasing the readiness and skill inherent in the "total force."

Blue Harrier 97.—This biennial, multinational mine-warfare exercise highlighted the newly converted mine countermeasures (MCM) command-and-control ship *Inchon* (MCS 12). This exercise provided NATO mine warfare units the opportunity to interact in tactics and procedures, which promoted cooperation and mutual understanding amongst its participants.

Tandem Thrust 97.—Tandem Thrust 97 was conducted in the Shoal Water Bay Training Area, Australia. As part of a Combined Task Force (CTF) headed by Commander Seventh Fleet, forces from *Independence* (CV 62) Carrier Battle Group, an Amphibious Ready Group built around the *New Orleans* (LPH 11), III MEF, and the 11th MEU(SOC) worked with other U.S. and Australian forces on a short-warning crisis-action scenario. The exercise implemented USCINCPAC's cooperative engagement strategy and demonstrated U.S.-Australian cooperation.

Carat 97.—Regional stability in Southeast Asia is supported by the Pacific Fleet's cooperation afloat readiness and training (CARAT) program, patterned after UNITAS. Active and reserve surface combatants, maritime patrol aircraft, a special purpose Marine air-ground task force, medical detachments, and a U.S. Coast Guard cutter conduct exercise with six countries in the South China Sea region for two months each year. In 1997, Brunei, Indonesia, Malaysia, Singapore, and Thailand participated. Our naval forces exercised with the host nation's air, sea, and land forces to promote regional maritime interoperability, increase readiness, enhance military-to-military relations, and ensure stability of Southeast Asian sea lanes of communication.

Kernel Blitz 97.—This large scale amphibious exercise was conducted at Camp Pendleton, California in June 1997. As a maritime contingency response to a freedom-of-navigation challenge, Kernel Blitz 97 demonstrated the inherent flexibility of the Navy-Marine Corps team with at sea, amphibious, and subsequent operations ashore. The use of emerging technology was a key underlying concept to Kernel Blitz 97. Using the Global Command and Control System (GCCS), all participating units received a common tactical and imagery picture from multiple sources.

Arctic Care 97.—Navy and Marine reservists of the 4th Force Service Support Group participated in a joint civic action exercise in isolated villages in the Yukon-Kuskokwim Delta in Alaska. This exercise provided valuable training for 150 Marines and Sailors as they augmented the understaffed rural health care system. Hu-

manitarian medical, dental, veterinary, and light engineering support were afforded to the indigenous Yupik Eskimo population.

Military Support To Civil Authorities

Chemical-Biological Incident Response Force.—In response to the threat of weapons of mass destruction against American interests, the Marine Corps Chemical-Biological Incident Response Force (CBIRF) provided support for national events during 1997—beginning with a deployment to Washington, D.C., for the second inauguration of President Clinton. The CBIRF, consisting of both Marine and Navy personnel, was positioned to quickly respond to a terrorist chemical or biological attack. Functioning within the Federal Response Plan and working with the First Army's Response Task Force, the CBIRF developed a helpful relationship with other first responders. In addition, the CBIRF supported the Summit of Eight in Denver, Colorado during the summer of 1997.

Western U.S. Floods.—(Winter/Spring 1997). Nevada and California experienced record rainfalls and rapid winter snow melts in 1997. Widespread flooding forced the evacuation of thousands of residents and caused extensive damage. Naval Reserve emergency preparedness liaison officers (EPLO's) were assigned to the Federal Emergency Management Agency (FEMA) and National Guard emergency operations centers to coordinate Federal, Department of Defense, and state assets. Navy EPLO's coordinated Naval Construction Battalion efforts to repair weakened dams and bridges, and coordinated logistical support requirements, including shipment of more than one million sandbags.

Great Plains Blizzard and Flood.—(Winter/Spring 1997). North and South Dakota's record-setting snowfall and subsequent snow melt produced extensive flooding. During these events, Navy EPLO's were responsible for coordinating support equipment from nearby bases. Navy EPLO's established themselves on site and became the official Department of Defense representatives for coordinating DOD support with the 5th Continental Army.

When later Spring floods again affected South Dakota and Minnesota, Navy EPLO's were on scene. Marine Corps and Coast Guard personnel entered the fray, and Navy EPLO's were requested to once again help coordinate support efforts. Navy EPLO's worked with the Department of Defense Disaster Coordination Office, the other armed services, and many local agencies.

Freedom Of Navigation

The ability to move U.S. forces when and where they are needed depends upon unfettered access to the world's oceans and international airspace. To ensure access as a matter of legal right, U.S. naval forces in 1997 conducted more than 20 operations to protest excessive maritime claims, in support of the President's Freedom of Navigation Program. These assertions supported the U.S. foreign policy objective of adherence by all nations to the International Law of the Sea.

Similarly, the Department of the Navy strongly supports U.S. accession to the Law of the Sea Convention as amended in 1994. A majority of the world's nations now are signatories to the Convention, including all major maritime powers except the United States. Worldwide acceptance of the Law of the Sea Convention remains the best guarantee of a stable ocean's regime that recognizes navigational and overflight freedom crucial to naval operations. Accession by the United States also provides less of an incentive for states to make and enforce excessive claims. That should, in the long term, result in a decline in the number of excessive maritime claims which restrict our rights of mobility and access.

The Department of the Navy is operating today to provide for America's interests. The forward-deployed strategy is cost-effective for the nation while simultaneously providing a ready, responsive force capable of meeting the challenges of today's chaotic world. Conducting daily operations and exercises with allies reinforces our commitments to friends and potential adversaries alike.

SAILORS, MARINES AND CIVILIANS: OUR MOST VALUABLE RESOURCE

People are the heart and soul of the Navy-Marine Corps team. With a fiscal year 1997 end strength of 395,000 active duty and 95,898 Reserve Sailors, 174,000 active duty and 42,000 Reserve Marines, supported by 220,000 federal civilian employees, the Department's personnel form a flexible, well-trained and responsive team.

A key element in recruiting and retaining a high quality all-volunteer force must be a military compensation package that allows the Department of the Navy to keep faith with our people and is reasonably competitive in the civilian labor market. A solid and sensible compensation plan remains essential to maintaining operational readiness. Compensation competitiveness is determined by the real-dollar value of basic pay, food and housing allowances, special and incentive pays or bonuses, and

such benefits as commissary and exchange privileges, medical and dental care, retirement, and paid leave. Given the extraordinary demands placed upon Sailors, Marines, and their families, it is imperative that we ensure all factors of compensation, from basic pay and dependents' medical care to retirement benefits, are adequately addressed. This is even more vital given the vast array of private sector opportunities which continue to attract our most talented, highly trained, and experienced Sailors and Marines.

Together, the Navy-Marine Corps team has served as the shield of the republic since the earliest days of our nation. Navy and Marine Corps personnel have performed together magnificently as a result of our ability to recruit, train, and retain the highest quality personnel. For over two centuries, Navy and the Marine Corps personnel have exemplified our shared core values of honor, courage, and commitment. At the leading edge of the new century, the significance of our forward-deployed Navy-Marine Corps team has never been greater. The unique culture and traditions that have brought success in the past need to be sustained and nurtured in the future.

Shaping the Total Force

Navy-Marine Corps end strength is approaching steady-state, but will require further modest reductions to implement the recommendations of the Quadrennial Defense Review (QDR). Consequently, the operational readiness of the Navy and Marine Corps depends, now more than ever, upon our ability to recruit and retain the very best men and women with the right mix of skills and experience. Ensuring the quality of life and professional development of our Sailors and Marines is of primary importance. We must provide rewarding career opportunities, a quality standard of living, and fair and adequate compensation.

Recruiting Tomorrow's Leaders

Attracting the high-caliber youth needed to maintain our future force is the recruiting focus of the Department of the Navy. Although low national unemployment and an increase in college enrollment created a challenging recruiting environment, 1997 proved to be a successful year for Navy and Marine Corps recruiting. Recruiting strategy focused on attracting highly qualified individuals for particular skills in the Fleet and Fleet Marine Forces. Navy recruiters achieved 100 percent of their overall recruiting goals, employing targeted marketing to achieve 100 percent of nuclear field and critical-ratings goals. In addition, the academic quality of Navy enlisted recruits remains high: more than 95 percent earned high school diplomas, and 66 percent scored in the upper half of the Armed Forces Qualification Test. The Marine Corps attained more than 100 percent of enlisted recruiting goals and exceeded Department of Defense goals in all tier and aptitude categories for the previous 30 consecutive months. This singular accomplishment is directly attributed to the dedicated efforts of our Marine Recruiters.

Traditional commercial advertisements, emphasizing our core values of honor, courage, and commitment continue as the mainstays of our recruiting effort. The Marine Corps also has developed a series of advertising campaigns designed to attract more women and minorities into officer and enlisted programs. They are increasing the use of radio, print, and direct-mail advertising specifically tailored for women, as well as such high-profile marketing opportunities as sponsorship of the Extreme Games and Hoop-It-Up.

Partly responsible for this success is the boost special duty assignment pay (SDAP) has given to maintain a quality recruiting force. The Navy and Marine Corps recruiting commands continue to assign the highest-caliber commanders and most stringently screened Sailors and Marines to recruiting duty. A number of initiatives are in place to improve the quality of life for recruiters and their families assigned away from major bases or stations.

As we continue in our efforts to attract highly qualified and culturally diverse officer and enlisted candidates, we are ever-mindful of the formidable challenges the future presents. Historically low unemployment, record high college enrollment, and a declining veteran population which reduces exposure to the military as a career option, contribute to a potentially lower propensity to enter the military services. For the first two months of fiscal year 1998, Navy recruiting accessed only 91 percent of goal. If that trend continues through fiscal year 1998, it may lead to an annual accession goal shortfall of 4,000 personnel.

Realizing that recruiting top quality people is one of the most significant challenges facing the Department, we have developed a recruiting campaign involving the entire chain of command. As an example, the Secretary of the Navy has sent letters to high school principals throughout the Nation, urging them to actively discuss the potential of a Navy or Marine Corps career with their students. We also

are attempting to address the challenge head-on with a number of new initiatives, including accessing more females, recruiting more general detail (GENDETS) personnel, and increasing opportunities for Navy veterans to return to active duty. Extensive use of Internet homepages to advertise highly technical careers in the Department also has proven to be a superb recruiting tool. Additionally, funding has been increased for traditional advertising, enlisted bonuses, and the Navy College Fund (NCF) program to help in all aspects of retention and recruiting.

We made improvements in increasing minority accessions in both officer and enlisted ranks through the enhanced opportunities for minorities initiatives (EOMI) program. While solid progress was made for enlisted accessions, more work is needed in the area of officer accessions. Additionally, we are exploring better ways in which to achieve a better distribution of minorities across technical and nontechnical ratings. Our efforts are not focused on achieving quotas, but rather continuing to accept and promote only the best qualified and highly motivated personnel to serve in the Department of the Navy.

The Department's ability to recruit an exceptionally well-qualified and diverse civilian workforce has been enhanced through a series of coordinated recruitment programs, which have brought Navy and Marine Corps activities together with college and university students. To invest in future civilian recruitment, special residential and scholarship programs were established to acquaint outstanding high school and college students with the Department's technical missions.

Retaining the Best and the Brightest

Maintaining a skilled, motivated and ready force is the foundation for the future of the Navy-Marine Corps team. By fiscal year 2000, after several years of downsizing, we will be at a point where every loss to the Navy must be offset by a recruit in order to maintain stable end strength. This will be challenging. The United States has a strong economy with plentiful employment options. Moreover, fewer young people today express interest in joining a military service. Although faced with further reductions associated with the Quadrennial Defense Review, it is prudent that we start retooling our retention program now. For example, we continue to offer a selected reenlistment bonus to keep critical billets filled. The percentage of Sailors offered this program was greatly reduced during peak downsizing years, but current personnel levels demand an increase in those eligible for this bonus. Other career stabilizing initiatives include affording Marine Corps first-term enlistees the option of choosing one of three duty stations for their second term. Similarly, Navy homebasing initiatives give families more stability by serving in a single fleet concentration area.

Educational opportunity remains a cornerstone of Department of the Navy career-incentive programs. New Navy recruits report that the Montgomery G.I. Bill was the number one reason for enlisting, and the Navy College Fund (NCF) continues as a primary incentive program for specialized-skill areas. This past year, Navy increased the NCF to provide a total of \$40,000 in benefits for nuclear program enlistees. In addition, tuition assistance is available for self-motivated Sailors and Marines. At sea, or when deployed to remote locations, the Program for Afloat College Education (PACE) and the Marine Corps Satellite Education Network (MCSEN) continue to accelerate the use of distance learning for further education.

A stable and competitive officer corps is essential to lead the Navy and Marine Corps. Nuclear officer incentive pay, medical officer incentive special pay and Aviation Continuation Pay (ACP) are some of the tools enabling the naval services to retain capable, talented and technically oriented leaders in the face of ever-increasing private sector competition. Using the higher authority approved in the 1998 National Defense Authorization Act, the Navy and Marine Corps are addressing pilot retention issues within selected warfare communities.

Adequate compensation fosters improved retention in mission critical skills, increases morale, and maintains high readiness. The basic allowance for housing (BAH) system, authorized by Congress in the Fiscal Year 1998 Defense Authorization Act, will be phased in over a six-year transition period. The BAH is expected to provide an immense benefit for Sailors and Marines stationed in high-cost, metropolitan coastal areas, and improve the lives of our junior enlisted personnel.

Passage of the Military Retirement Reform Act of 1986 (Redux) has decreased considerably the benefits of making military service a career. Studies have shown that a typical enlisted member with 20 years of service will receive 25 percent less retirement compensation than before Redux. This erosion of benefits translates into a growing perception that a military career is less advantageous than civilian employment. This, in turn, affects force retention and stability in our mid-grade officer and enlisted personnel. The Department supports the exploration of alternative retirement savings programs.

Navy and Marine Corps Reserve Contribution

The Naval and Marine Corps Reserve provided an unprecedented level of support during the past year. Increasingly used as a force multiplier to accomplish everyday missions, the Naval and Marine Corps Reserve is no longer just a force-in-waiting—to be called upon in the event of global war. To this end, Reserve contributory support to the active Fleet has more than doubled since 1991, to more than two million man-days of direct mission support in 1997.

The Naval Reserve plays a significant role in virtually all major operations and exercises. Reserve ships and aircraft are increasingly used for counter-drug and other fleet operations, such as a Mediterranean deployment for the operational reserve carrier *John F. Kennedy* (CV 67) and a deployment to Europe for a multinational mine countermeasures (MCM) exercise for the reserve MCM command ship *Inchon* (MCS 12). A driving force in this increased deployment of reserve force ships and aircraft has been to lessen active duty personnel operational tempo. This increased role is highlighted by the fact that five of the ten reserve frigates were deployed for periods of four to six months in 1997. These deployments included CARAT, BALTOPS and counter-drug operations, which were missions previously assigned to active units. Naval reserve force ships have expanded their role in these deployments by rotating selected Reservists that make up one-fourth the crew.

The reserve expanded their support of the fleet in other ways as well. Reservists filled critical positions in fleet hospitals, naval hospitals and with the Marine Corps, and participated in virtually all naval medical exercises. Even critical leadership positions have become an area for Reserve personnel to assist the fleet.

In addition to the traditional mobilization posture, the Naval Reserve has expanded its utility to the active component, as a contingency response team and a vital pool of manpower and equipment. Structured to support the fleet on a daily basis, the Naval Reserve provides 100 percent of the Navy's forces in such mission areas as: adversary aviation squadrons, fleet aviation logistics support, mobile inshore undersea warfare, and naval control of shipping.

The Marine Reserve component is a critical element of the Total Force. The active component, as the nation's most ready force, has primary responsibility for forward presence, operations other than war, and crisis response. The Marine Corps Reserve supports these missions with individuals and units as required. During fiscal year 1997, Marine Reservists worked and trained alongside their active counterparts in numerous operations and exercises. More importantly, the Marine Reserve augments and reinforces the active component, creating a Total Force capable of sustained combat in the event of a major theater war.

Today, more than 95 percent of the units of Marine Forces Reserve are assigned to active component forces in support of the Marine commitment to joint operations plans. Reserve participation is essential with today's smaller active-duty force. Success throughout the full range of possible missions, from military operations other than war (MOOTW) to augmenting and reinforcing the active component in periods of crisis, demands the seamless integration of both forces.

The Marine Corps Reserve exists to enhance the operational capabilities of the active component. The Marine Corps Reserve currently contributes 26 percent of the force structure and 37 percent of the trained manpower to the Total Force Marine Corps. One hundred percent of the adversary squadrons, civil affairs groups, and battalion-sized reconnaissance units; 50 percent of the tank battalions and theater missile defense detachments; and 33 percent of the artillery battalions are provided by the Marine Corps Reserve. The full integration of active and reserve personnel into combined-arms air-ground teams are the nation's force-in-readiness—the highly capable Marine Corps.

*Naval Training: Today's Investment, Tomorrow's Capability**The Navy Training Continuum*

The Naval Training Center in Great Lakes, Illinois, has initiated an innovative boot camp final exam named "Battle Stations." This was done to ensure that Sailors were ready to join the Fleet. New Sailors use teamwork, basic seamanship and nautical knowledge gained during the boot camp curriculum to master seven training stations during a pre-graduation battle problem. "Battle Stations" uses fleet experiences to create a more challenging and relevant training regimen for the Navy's newest Sailors.

To continue preparing junior Sailors for career success after basic recruit training, the Navy uses basic and advanced-skills schools in areas such as engineering and weapon systems. Employing electronic manuals, remote video classroom techniques, and on-board systems, the Navy is training more Sailors with greater productivity. Afloat training groups at fleet concentration areas are used to tailor training to

meet the needs of individual commands. Tailored training eliminates duplication, saves time and concentrates on correcting individual and unit weaknesses. In addition, through careful planning, operational exercises provide windows of opportunity for follow-on at-sea training.

The Navy's leadership continuum puts career-spanning rigor into leadership training, for both active and reserve personnel. The leadership continuum is the Navy's vehicle for imparting leadership qualities into a program of recurring training from recruitment to retirement. The purpose of the training is to produce warriors whose individual skills and values enable them to bond together as a cohesive combat-ready team.

Leadership training commences at accession training and is reinforced through eight courses for officer and enlisted personnel, which form the basis of the continuum. Enlisted personnel attend the leadership training after selection to E-5, E-6, E-7, and Command Master Chief or Chief of the Boat. Officers attend the leadership training en route to specific leadership assignments. These progressive and sequential courses are all two weeks in length with the exception of the nine week Senior Enlisted Academy.

Four major themes are the foundation of all the courses: values; responsibilities, authority, and accountability of leadership; unity of command, Navy and services; and continuous improvement. The training is a deliberate process to transform behavior and attitudes, rather than just ensuring compliance with regulations, by providing a common perspective on the real importance of the Navy's core values of honor, courage, and commitment. As each Sailor progresses through the leadership training courses, they acquire the knowledge, skills, and experience to form the basis of leadership techniques. The formal leadership training is periodically reinforced in warfare and specialty pipeline training, at annual All-Hands training, and during development/professional assignments. Current education and training programs, which include leadership modules, are being aligned with the continuum themes to ensure consistency, and to eliminate redundancies and conflicts.

Marine Corps Transformation Process

Transformation is an ongoing and dynamic process of making Marines, and consists of four phases: recruiting, recruit training, cohesion, and sustainment.

Recruiting.—The transformation process begins with the first contact with a Marine recruiter. A demanding and extremely selective screening process follows: Those who qualify enter an improved delayed-entry pool to prepare for recruit training; enhanced physical conditioning, study guides, and instruction on Marine Corps history and traditions become integral parts of that preparation; and potential recruits also receive their introduction to Marine Corps core values. In addition, the recruiter introduces them to the concept of total fitness—body, mind, and spirit. From the outset, it is made clear to recruits that they will be expected to undergo a transformation to become a valued part of an elite organization.

Recruit Training.—On October 1, 1997 recruit depots implemented significant changes to the focus and content of recruit training. Recruit training was lengthened from 11 to 12 weeks for both males and females. This provides additional time for drill instructors to teach, mold, and mentor their recruits. Supporting this change is a significant increase in core values training, totaling more than 50 hours of instruction, discussion, and training reinforcement critiques. The most notable enhancement to recruit training is the addition of the "Crucible" event, intended to test the mettle of every recruit at the culmination of recruit training. As the true rite of passage from recruit to Marine, the Crucible is a 54-hour field training evolution, emphasizing the importance of teamwork in overcoming adversity. The regimen includes food and sleep deprivation and an operational tempo that poses continuous physical and mental challenges.

Cohesion.—Unit cohesion is defined as the intense bonding of Marines, strengthened over time, resulting in absolute trust, subordination of self, and an intuitive devotion to the collective actions of the unit. To achieve this, the Marine Corps is forming teams of Marines immediately after recruit training and assigning those teams to follow-on skill producing schools. Subsequently, they are assigned to operational units in the Fleet Marine Force. Changing from individual assignment to unit assignment is a major modification of personnel policies—but one that will improve combat efficiency.

Sustainment.—The sustainment of the transformation process is continuous, and spans all that Marines do throughout their service. Professional military education schools educate Marine leaders—officers, staff noncommissioned officers, and noncommissioned officers—in "whole Marine" character development. Leaders in both the operating and in support forces conduct business and accomplish their missions in ways that support and reinforce both core values and team building. Leaders are

also expected to manifest core values and mentor their subordinates. Living the Marine Corps ethos is a shared responsibility for all Marines and continues until the day a Marine hangs up the uniform for the last time—and beyond.

Voluntary, Professional, and Graduate Education

Voluntary education programs have made a significant contribution to recruiting, retention, and readiness. The latest recruiting survey indicates that over 25 percent of Navy's enlistees cited "money for college" as the primary reason they joined the Navy. Our enlisted force has shown that pursuing follow on education remains a high priority. For the past several years, a majority of our E-4 to E-6 potential career force retention candidates have used tuition assistance (TA). The interest in advanced education prompted the Department to consolidate the Navy and the Marine Corps tuition assistance programs in 1995. This "centralized" TA system saved \$1 million in its first year of operation. These and future savings will translate in more courses for our personnel.

The Department of the Navy is committed to making it just as easy for personnel at sea to have access to educational opportunities as those ashore. In fiscal year 1997, the Navy's Program for Afloat College Education (PACE) became available in every one of the 346 ships in the Navy, and over 20,000 Sailors participated in the program. Using tools such as PACE and the Marine Corps Satellite Education Network (MCSEN), most Sailors and Marines are able to pursue an education during off-duty time, regardless of duty assignment or location.

To increase access to education, the Navy is moving to establish academic skills learning centers worldwide. By fiscal year 1999, 21 centers will be activated, with a total of 52 centers planned by fiscal year 2001. These centers provide Sailors with the opportunity to improve basic academic skills, assist them in retaking the Armed Services Vocational Aptitude Battery (ASVAB) tests, help prepare them for college work, and achieve their educational potential. The MCSEN also provides the technology to deliver a standardized military academic skills program to all major Marine Corps installations, which guarantees accessibility to basic skills improvement courses in reading, writing, communications, and mathematics.

As the largest single source of Navy and Marine Corps officers, the Naval Reserve Officer Training Command (NROTC) prepares men and women at civilian universities to assume junior officer positions in today's technical Navy and Marine Corps. NROTC scholarships at our nation's finest universities gives the Department added visibility to recruit tomorrow's leaders.

The Department of the Navy is evaluating our graduate education programs to ensure that its leaders are prepared for the challenges of warfare and national security in the next century. Naval flagship education institutions, which include the Naval Postgraduate School, Naval War College, Marine Corps University, and the United States Naval Academy, provide multiple opportunities for officers to attain graduate education in a military setting. Opportunities for naval personnel to obtain postgraduate education at civilian universities also exist in several disciplines under the graduate education at civilian institutions program. Joint postgraduate education enables naval officers to function within the joint environment and master the intricacies of joint warfare planning and operations. The Naval Academy now offers a graduate program in leadership, culminating with a Master's degree for junior officers. Navy graduate medical education programs prepare medical officers for the challenge of operational and peacetime roles. In addition, the Navy and the Marine Corps have ensured that tuition assistance remains a continuing option to complete graduate education for enlisted and officer service members.

The Department of the Navy civilian leadership development program identifies certain leadership competencies that commands and activities use to establish formal leadership programs. The program provides all employees with opportunities to acquire knowledge and skills that enhance their competitiveness for higher level positions. Civilian leadership development also supports the Defense leadership and management program, which offers advanced leadership and executive-level skills and professional military education to GS-14 through Senior Executive Service (SES) employees. These programs support Department of the Navy initiatives to bring civilians into high-demand technical career paths. These programs start at the entry level and can help highly motivated and successful employees move to senior management and executive levels.

Fostering Excellence

Core Values: Principles By Which We Live

The Navy and Marine Corps are committed to sustaining our tradition of building strong character and ethical behavior. Character, ethics, and core values underscore morale and personnel readiness to improve mission performance. People who are

trained and led by role models of high character are inspired to attain equally high levels of integrity and commitment.

The emphasis placed upon our core values of honor, courage, and commitment is the foundation of Navy and Marine Corps efforts to combat such unacceptable behavior as sexual harassment, alcohol and drug abuse, hazing, and fraternization. Ethical awareness and adherence to core values is at the forefront of Department policy, planning, and action. In 1996, we promulgated our core values charter, which highlights the bedrock principles of the Navy-Marine Corps team. Character, ethics, and core values are emphasized throughout the career of each Sailor, Marine and civilian. This approach ensures that character, ethics, and core values are visible continuously at all levels, and reemphasized as each individual grows in tenure, responsibility and authority.

Equal Opportunity

The Department of the Navy offers every Sailor, Marine, and civilian employee equal opportunity to succeed and achieve his or her fullest potential, regardless of ethnicity, gender, national origin, race, or religion. With strong emphasis on core values, the Department ensures that each individual is treated with dignity and respect. A recent amendment to Department of the Navy regulations prohibits participation in any supremacist organization espousing discrimination based upon race, creed, color, sex or national origin. In addition, the Department of the Navy continues to emphasize the critical role of women in the fleet.

Since 1994, women have been eligible for assignment on board combat ships and aircraft. With the exception of submarine duty and special operations, women train and serve in every Navy community and career field. Moreover, the women at sea program continues to expand career opportunities for women on combatants and in aviation. In fiscal year 1998, more ships and another carrier air wing will become gender integrated, bringing the gender-integrated ship total to 133 and the air wing total to five.

The Department of the Navy's focused efforts to eliminate sexual harassment were reflected in the 1995 Department of Defense Sexual Harassment Study, which reported that the Navy and Marine Corps showed the greatest declines in reported sexual harassment incidents among all the Services. We continue to reemphasize our commitment to eradicating sexual harassment, unprofessional relationships, and unacceptable conduct. Active efforts concentrate on oversight, leadership, policies, and training, while providing assistance and formal assessments of our programs. In a recent survey, Navy and Marine Corps focus groups reported we are successfully communicating to the field our core values and policies on sexual harassment and unprofessional relationships. When policy infractions occur, our toll-free advice lines, victim/witness assistance programs, counseling, advocacy, and other community support services are working effectively with our commanders to take action to eliminate the problem and prevent recurrence.

Quality of Life: Taking Care of Self and Family

The Department of the Navy recognizes quality of life as a vital component in recruiting and retaining the quality men and women needed for the force of the 21st century. The Departmental focus is to provide an acceptable level of quality housing, health care, and community support services to Sailors, Marines, and their families, regardless of duty station. Key elements of the quality-of-life program include an adequate compensation and benefits package, as well as a positive environment that provides our personnel the requisite tools to reach their full potential. To this end, the Department of the Navy has established minimum quality-of-life guidelines, and is working toward consistent and professional delivery of all quality-of-life components.

Alcohol and drug abuse can seriously impact the quality of life of Navy and Marine Corps members and their families. Alcohol abuse accounts for almost half the accidental deaths each year in the Navy and Marine Corps. It is also associated with many safety, health, discipline, and family problems. We are actively and aggressively addressing these issues and promoting an environment and culture which will not accept alcohol abuse. We have established a standing committee on alcohol use "deglamorization" that monitors the Navy's "Right Spirit" campaign and the Marine Corps "Semper Fit" program. These initiatives have contributed to the declining trends in alcohol abuse.

Additionally, our "Zero Tolerance" policy has significantly reduced drug abuse. Positive drug-test results have declined from 14 percent in 1981 to less than 1 percent today. More recently, both Navy and Marine Corps have initiated pre-employment drug testing at Military Entrance Processing Stations (MEPS) which should further reduce drug abuse within our active duty forces.

Housing the Force

Properly housing our personnel and their families remains a core quality-of-life issue. New initiatives underway in family housing, bachelor quarters, and housing allowances underpin our commitment. The military housing privatization authorities are rapidly becoming the sharpest tools in our kit. Erasing maintenance and repair backlogs and suitable-housing deficits hinges on the careful use of these authorities, in concert with the traditional application of appropriated dollars. Changes to the housing compensation system now provide allowances that more closely match actual housing costs.

The availability of family housing program dollars continues to challenge the Department in its desire to eliminate maintenance and repair backlogs. With more than 45,000 homes in need of major repair or replacement, the Department is developing projects to be funded through a combination of family housing funds and an aggressive public-private venture (P/PV) program. By calling upon the strengths and capabilities of private-sector housing providers and experts, the P/PV authorities will allow the Department to accelerate revitalization goals and stimulate the development of quality housing units.

The Navy is reexamining the requirements necessary to achieve the barracks standard of "1 + 1" (e.g., two single-occupant rooms that share restroom and bathing facilities) for permanent-party personnel in grades E-1 through E-4 and have committed to the development of installation-level implementation plans. The Navy plan will be completed by April 1998. Construction funds have been programmed through the current Future Years Defense Plan (FYDP) to help the Navy attain the "1 + 1" goal. The Marine Corps plan began in fiscal year 1996 by identifying priorities at each installation, based upon projected manning requirements, the current inventory of adequate spaces, and proposed new construction. As an interim step in executing its plan, the Marine Corps has programmed more than triple the historic funding level to replace approximately 10,000 inadequate barracks spaces and meet a "2 + 0" standard by 2005 (e.g., double-occupant room with a private restroom and bathing facility).

Child Care

Affordable, high-quality child care also is a critical quality-of-life requirement. Initiatives to expand availability include: contracting for spaces in qualified off-base civilian centers, expanding family child care to incorporate off-base residences, enhancing our resource and referral program, school-age care partnerships, and regional contracts with local providers.

Community and Family Support

Rounding out quality-of-life services for Marines, Sailors and families are community support programs, entailing individual and family support services. A full range of family support services, emphasizing basic skills for living, are available. The Marine Corps' formal Key Volunteer Network Program and the Navy's Ombudsman Program work at the grass roots level to assist spouses and families while the service member is deployed. In addition, the Marine Corps is implementing LINKS (lifestyle, insights, networking, knowledge, and skills) to assist new families adapt to life in the Marine Corps. These outreach efforts are an integral part of readiness and retention.

Single Sailors and Marines represent the largest category of personnel in our Armed Forces. Typically, they live in modest accommodations, and need programs which enhance their physical and mental readiness, provide recreational opportunities, and offer meaningful and beneficial activities during off-duty hours. The single Sailor and Marine programs address these specific needs. Initiatives include safe and secure storage for personal belongings and vehicles during deployment, pier-side laundry facilities for those who live on board ship or are deployed overseas, and quality fitness equipment. The Great Lakes Training Center even has a recreational facility, providing activities for recruits during the recruit training curriculum.

Meeting Spiritual Needs

Quality of life for Sailors and Marines also means ministry at sea, in battalions, on flight lines, and in housing areas. More than 900 chaplains in the Navy, including 350 serving with Marine Corps units, mold values by facilitating the free exercise of religious faith, providing around-the-clock pastoral care and counsel, and encouraging spiritual growth. As key players during crises, chaplains provide intervention skills and spiritual, emotional, and practical support during times of personal loss, bereavement, and transition. Chaplains interact with Family Service Centers, the Navy and Marine Corps Relief Society, American Red Cross, and other agencies to ensure that military personnel always receive superb support.

Drug Demand Reduction Task Force

The Secretary of the Navy's Drug Demand Reduction Task Force (DDRTF) continues its contribution to the war on drugs and is committed to increasing Navy and Marine Corps readiness. The cornerstone program, drug education for youth (DEFY), provides constant positive influence for 9- to 12-year-old children of Sailors and Marines. In 1998, the DDRTF is producing television public service announcements, spotlighting the "It's a Life or Drugs Situation" campaign.

Serving our Retired Shipmates

We are committed to fulfilling our promises to the more than 460,000 Naval Service Retirees. The Navy and Marine Corps have established Retired Activities Offices worldwide, manned by volunteers who provide counseling and assistance to retirees and family members.

Health and Fitness

The goal of the health promotions program is to develop physical health and readiness of all Department of the Navy military personnel. Progress in achieving and maintaining a healthy lifestyle is evaluated through semiannual physical fitness and body-composition testing programs. Today's Sailors and Marines are more fit and healthier than at any other time in our nation's history.

Morale, welfare, and recreation (MWR) programs support the mental and physical readiness of our Sailors. Our fitness and sports activities are the cornerstones of our approach to ensure all Sailors meet mandatory fitness standards. Our main focus is to engage naval personnel in a comprehensive fitness program for the benefit of the individual, the unit in which they serve, and the Department as a whole.

To better prepare Marines for the rigors of combat, the Marine Corps is developing training and education programs that will provide access to basic sports-medicine information. These courses will be offered on the Internet and in CD-ROM format. Sports medicine and rehabilitation therapy (SMART) clinics at both San Diego and Parris Island Marine Corps Recruit Depots were established to assist recruits who receive sports-related injuries during their initial training. In addition, Marine Corps Base, Quantico, has established the Wellness Center in Larson Gym, to provide preventive medical care.

Medical

Quality health care is the hallmark of Navy medicine. In recent years, average accreditation scores for Navy hospitals have been in the 90th percentile, exceeding average civilian hospital scores.

Navy medicine will continue to find innovative ways to provide medical and dental care as close to the worksite as possible. Pierside clinics, deployment of health-care specialists with the operating forces, and new programs at recruit training activities that save valuable training time by delivering health care to trainees on-site are just the first steps.

New technology enables the Navy to provide specialty consultation in remote areas and achieve cost and time savings by reducing the need to transport patients. It also greatly enhances the ability to provide quality health care for forward-deployed operating forces and at remote medical treatment facilities. The successful telemedicine technology developed in our operational testbed, *George Washington* (CVN 73), is now being applied to support operational medical services in other locations.

Navy medicine is committed to providing an atmosphere of health care excellence. Guiding Navy medicine are three basic themes: taking health care to the deckplates; moving information not people; and making TRICARE work. TRICARE's triple option health plan offers opportunities to reduce family member out-of-pocket expenses and improves health care access. While the HMO option of TRICARE (Prime) is most likely the best choice for most family members and retirees, the program offers traditional fee-for-service options for those who prefer more freedom of choice in selecting a health care provider.

We are working to improve the ways we assist people who have experienced problems with the health care system. We demonstrated a TRICARE Advocacy Plan at several facilities recently which has shown very promising results. The Department plans to expand this program to more Navy and Marine Corps bases.

In conjunction with the Department of Defense and other Services, the Navy is working to ensure TRICARE's success. As TRICARE approaches full implementation in 1998, delivery of patient-focused, consistent health care to all beneficiaries, regardless of geographical location, remains our goal.

Beneficiary education and customer-focused marketing are some of our important priorities. The Navy and Marine Corps leadership is promoting improvement of

services and our response to the needs of Sailors, Marines, retirees, and family members. Encouraging current legislative authority allows the Department of Defense to proceed with the Medicare subvention demonstration project. Although the subvention test sites have yet to be approved, Navy is preparing to participate in this important demonstration. Working with DOD and the other services, we look forward to demonstrating our ability to offer TRICARE Prime to our valued retirees age 65 and older. We also are continuing to assess options to improve access to medical care for our Medicare-eligible beneficiaries. Indeed, we estimate that only half of our Medicare-eligible population lives near a military treatment facility and would therefore not be eligible to join TRICARE even if it were authorized across the country. Navy supports all initiatives to assess alternative health care options for our retirees. We are acutely aware of the "broken promise" of lifetime care expressed by many retirees, especially those over 65 years old and not eligible for TRICARE. Recent efforts by DOD to review options to the present programs are fully supported by the Department. Our study of this issue will hopefully help us develop an equitable and consistent health plan for all retirees.

READINESS

Today's Readiness: Mission Capable

The Department's forward-deployed naval forces remain the most viable means for the nation to respond rapidly to contingencies around the world. On any given day, one-third of our ships, submarines, squadrons, and Marine units are deployed overseas. Multiple demands placed on non-deployed forces—units that recently returned from a deployment or are preparing for an upcoming commitment—require nearly one-half of these assets to be at sea or away from home port during that same day. Never has the Department asked more of its people and equipment during peacetime than today. Yet, the Navy and Marine Corps team remains ready, in all respects, to execute fully its many mission areas.

Continuous naval presence in critical regions worldwide provides the National Command Authorities (NCA) a wide range of military capabilities. A visible, credible force possessing deep strike, amphibious, command and control, peacekeeping, and even environmental compliance enforcement capabilities is core to this nation's standing as the preeminent superpower. Presence is the key—and naval forces provide it every day in every corner of the world.

Through their continued forward presence, naval forces help maintain global stability. Even though the fleet and the number of Sailors and Marines in uniform have been reduced, we remain ready to protect America's interest both at home and abroad. However, with a smaller force available to maintain the same level of commitment, it becomes increasingly important that non-deployed forces complete required repairs and training as scheduled. This is necessary in order to have units fully ready to meet follow-on forward-deployed operational commitments and overseas presence missions. Although the incremental costs for contingency operations are relatively small due to our forward presence, we must still divert programmed operations, maintenance, and training funds away from non-deployed forces to support such requirements. In the past, these actions were nearly transparent due to the size of the fleet. But with today's smaller force, absent supplemental appropriations, such actions have a more noticeable effect on readiness.

Tomorrow's Readiness Challenge

Readiness remains a top priority and the fundamental gauge by which the Navy-Marine Corps team measures its ability to respond to current and future national tasking. Accordingly, we constantly monitor and assess our readiness to determine the right fiscal balance among operations, modernization, and recapitalization accounts. The Department's readiness monitoring system has proved reliable in identifying deficiencies quickly so that appropriate action can be taken.

Naval forces are operating at a satisfactory, but lower, level of readiness. Today, deployed and non-deployed readiness continues to remain sufficient to meet all National Military Strategy commitments. We continue to assess the balance between operational and procurement accounts to ensure that we do not jeopardize our ability to transition instantly from peace to crisis to conflict.

Readiness is not only limited to our ability to meet today's commitment; our readiness must be able to answer both near-term and long-term requirements as well. Providing the necessary tools our people need to operate both today and into the future is essential to maintaining operational primacy. Our current equipment readiness remains satisfactory. In some major warfighting systems where it is cost-effective, equipment is being remanufactured or given a service-life extension (SLEP) to keep it operational. Two aircraft types, the electronic warfare EA-6B Prowler and

the maritime patrol P-3C Orion, are perfect examples of systems that are upgraded to keep their warfighting edge. Other major weapon systems are substantially upgraded to provide a bridge to future systems. The F/A-18E/F Super Hornet and the remanufactured AV-8B Harrier will ensure Naval air superiority and potent strike options are maintained until the Joint Strike Fighter joins the fleet. Likewise, the retrofit of the AAV-P7 amphibious assault vehicle will keep it capable of conducting its mission until the advanced amphibious assault vehicle (AAAV) becomes operational.

The Department is also formulating innovative systems for the future that will improve long-term readiness. Even as the most modern ships in the world leave the shipyards, active research and development efforts and budget conscious procurement plans for their replacement are underway. For example, 13 more *Arleigh Burke* (DDG 51)-class destroyers will join the fleet in the next four years under a cost-effective multilayer procurement plan, yet we are developing an innovative DD-21 design for next century. The Navy's budget request includes funding for CVN-77. Its design will make it an affordable transition carrier for a new concept ship, the CVX. The New Attack Submarine and the *San Antonio* (LPD 17)-class amphibious ship are innovative replacements for their aging predecessors and are necessary to maintain long-term readiness. The vast amount of work in research, development, and fielding of Navy theater missile defense systems is yet another example of long-term investments that are paying off today. In short, aggressive long-range planning ensures Marines and Sailors will continue to have the tools that they require, at an affordable price.

We also are examining innovative ideas to substantially reduce overhead costs. Smart Ship and Smart Base are initiatives to find ways to reduce personnel requirements on board our ships and bases. Similarly, we are investigating innovative technologies to improve efficiency and reduce crew size in new ship designs such as CVX and DD-21. Regardless of whether we are giving new life to existing systems or taking a technological leap into systems of the next century, proper funding of modernization accounts is critical to our continued operational primacy and future readiness. Striking the correct balance between current and future readiness is vital.

Safety: Reducing the Risks

Effective operational safety and occupational health programs are fundamental to preserving our resources and protecting our Sailors, Marines, and civilian employees from the daily hazards they face around the world. The Department's commitment to saving lives, and ensuring a high level of personnel and equipment readiness, have led to its unparalleled emphasis on safety programs.

In response to congressional concerns, the Office of the Secretary of Defense chartered a Defense Science Board Task Force on Aviation Safety. The Department of the Navy supports the key task force recommendations including efforts to achieve a goal of zero mishaps, to institutionalize operational risk management (ORM) and to increase implementation of key commercial off-the-shelf (COTS) aviation-safety technologies.

The Commandant of the Marine Corps and Chief of Naval Operations have signed new instructions that implement ORM. Training courses are under way to incorporate ORM into our daily operational routines. The Naval Safety Center provided an ORM "Train the Trainer" course, in order to jump-start implementation of operational risk management. The Marine Corps Combat Development Command and the Naval Doctrine Command are incorporating and embedding ORM in doctrinal publications. The Chief of Naval Education and Training and Marine Corps University will begin formal instruction of ORM during fiscal year 1998. Additionally, the Naval aviation Human Factors Quality Management Board (HF/QMB), started in 1996, has made huge strides in addressing human factors causes in mishaps, while serving as a platform to review technologies, policies, standardization, information dissemination, and cultural issues.

The Navy and Marine Corps Class A operational mishap rate in fiscal year 1997 was second lowest ever. Navy aviation set a new record for safety in fiscal year 1997, including going 118 days without a Class A mishap. Leadership involvement and focus on operational safety, accountability, and implementation of ORM were instrumental in achieving this significant milestone. Current naval safety-of-flight programs include cockpit voice and flight data recorders, global positioning systems (GPS), ground proximity warning systems (GPWS), and helicopter health usage monitoring systems (HUMS) providing enhancements that will ensure long-term operational success and loss reduction.

Aviation commands are developing and employing flight risk assessment and aircraft risk assessment matrices. A computer-based squadron assistance/risk assessment (SARA) program, developed by Boeing Military Aircraft Company (formerly

McDonnell Douglas Aerospace) in cooperation with Marine Aircraft Group-13, will be incorporated into all Marine Corps squadrons in fiscal year 1998. Navy aviation units are preparing to adopt SARA. Additionally, the 3d Marines, an infantry regiment, significantly reduced mishaps by incorporating ORM into all training and exercises.

These operational safety and survivability initiatives, implemented in conjunction with the Naval Safety Center, the Naval Postgraduate School, and Fleet and Fleet Marine Force (FMF) units, are reducing characteristic losses of the past. In units that activated the HF/QMB to address human factors in aviation, there was a 45 percent reduction in mishaps and have operated for more than 580 days without an operational flight fatality. The previous fatality-free record was 170 days. New windows of human performance information and opportunity are being explored. The recent surge exercise by U.S.S. *Nimitz* (CVN 68) proved to be an excellent opportunity to measure the effect of fatigue. Through such efforts, we are moving swiftly toward the goal of reducing losses due to human factors by 90 percent in five years.

The Department of the Navy remains committed to maintaining the balance between current readiness and aggressive modernization, which is critical to future readiness. Judiciously applying fiscal resources, improving safety records, and maintaining equipment contributes to today's readiness. Carefully planning for tomorrow through sound modernization practices will help create the most cost-effective force.

TECHNOLOGY: INNOVATION AND MODERNIZATION

The last decade showcases the diverse types of missions the Navy and Marine Corps undertake. From combat operations to disaster relief, from humanitarian assistance to civilian evacuations, our forces will need to adapt even more to the challenging operations of the future.

The explosion of new technologies has transformed the way militaries conduct warfare. Capabilities available today were not considered possible a mere decade ago. It is evident that the growth rate of these technologies will continue to accelerate. This phenomenon of rapid expansion in technology requires that the Navy and Marine Corps become experts in the innovative application of emerging technology to new and existing weapon systems. Innovation is critical in order to transform the aggregate impact of leading-edge technology into battlespace dominance. Together, the Marine Corps Warfighting Laboratory and the Navy At-Sea Battle Labs provide a venue to institutionalize innovation within the Department of the Navy.

Marine Corps Warfighting Lab.—The Marine Corps Warfighting Laboratory (MCWL) is the test bed for warfighting innovations within the Marine Corps. The MCWL investigates concepts and technologies and coordinates results with other Marine Corps organizations, defense industry, scientific research labs, academia, and the other military services. The MCWL developed the five year experimentation plan (FYEP), which consists of three phases, and is the cornerstone document for concept-based experimentation and the introduction of science and technology into the operating forces. Each phase is composed of limited-objective experiments (LOE) and culminates in an advanced warfighting experiment (AWE). The first phase, called Hunter Warrior, was completed in March 1997 and examined the contribution that a Marine air-ground task force (MAGTF) could make if provided with selected conceptual and technological improvements. Through the use of: enhanced targeting; precision fires; command, control, communications, computer and intelligence (C4I); and a limited deep operational maneuver capability—a force resembling a notional Marine expeditionary unit demonstrated a capability to shape the battlefield beyond current force-employment options. The next phase, Urban Warrior, will examine MAGTF operations in the urban littoral environment. This will be an advanced warfighting experiment (AWE) conducted on the east and west coasts of the United States in densely populated urban centers. Following Urban Warrior, the first Five-Year Experimentation Plan will culminate in Capable Warrior. This last AWE will experiment with naval expeditionary forces in an urban littoral environment.

Navy At-Sea Battle Labs.—Reflecting the inherent mobility of naval forces, the Navy's battle labs are not single physical entities, but rather the fleet itself. To bring technology and operational concepts together with real world conditions, the Navy employs fleet units as at-sea battle labs. Creating a virtual laboratory, the Navy initiated a series of fleet battle experiments (FBE) that use operational forces engaged in training exercises. The FBE's take forward-looking programs and integrate them with innovative operational concepts. These experiments focus on future programs that align the Navy with Joint Vision 2010 and other emerging operational concepts. In September 1997, the Third Fleet sponsored a sensor-to-shooter demonstration as part of Fleet Battle Experiment Bravo. A SEAL team on the ground in China Lake, California, transmitted an image of a target, via satellite,

to San Diego. The image was transferred to a classified web page and downloaded to *Coronado* (AGF 11), the Third Fleet flagship. The final destination for the target image was the cockpit of an F/A-18, enabling the pilot to see the target, fly to it, and conduct a successful air strike. After the strike, the target image was retransmitted to the same locations to aid battle-damage assessment.

Network Centric Warfare.—In April 1997, the Chief of Naval Operations declared that the Navy was shifting from platform-centric to network-centric warfare. This is warfare which derives its power from the networking of a well-informed but geographically-dispersed force. The enabling elements are a highly-webbed information service, access to all appropriate information sources, weapons reach with precision and speed of response, value-adding command-and-control processes—to include high-speed, automated assignment of resources to need—and integrated sensors hosted on the information network and closely coupled in time to the shooters and command-and-control processes. Network-centric warfare is applicable to all levels of warfare and contributes to the coalescence of strategy, operations, and tactics. It is transparent to mission, force size, and composition, and geography.

Information Technology 21.—Joint Vision 2010 highlighted the critical role information plays in the success of military operations. Increased processing power, networking capabilities, and software enhancements will have a dramatic and decisive impact on future warfighting. Under the Information Technology-21 (IT-21) concept, the Navy is building a communications-and-networking backbone that will support the rapid exchange of information between naval and joint platforms. New doctrine and organizations also are being developed to allow the Navy to take full advantage of these changes.

Trader's War Game Series (1995-1997).—In 1995, the Marine Corps initiated an effort to address a key reality of the future battlefield: widely dispersed units relying on longer range engagement through indirect fires, with the concomitant problem of engagement coordination, stressing information management and rapid, intuitive decision-making and pattern analysis. The initial phase of this program was conducted at the New York Mercantile Exchange (NYMEX) to extract relevant lessons from the daily "information war" occurring on the trading floor. This program is now poised to consider other nonmilitary organizations that confront the rapid decision-making dilemma, including large city police and fire departments, search and rescue organizations, the Federal Aviation Administration's air traffic control process, and medical trauma units.

Wall Street Game.—The Naval War College brought an eclectic group of professionals together to conduct a war game at the World Trade Center. Wall Street leaders, government experts on trade and finance, bankers, foreign policy specialists, and military officers from all the services examined the impact of a major regional conflict in the Middle East on trade and international financial markets. The war game also examined the market effects of systematic information warfare on power grids, telecommunication systems, and banking data bases. Its lessons learned will enrich our understanding of the symbiotic relationship between international events, communication systems, energy infrastructures, and military affairs.

Exploiting Technology in Major Programs

After technology and innovative concepts are identified, tested, and validated, the Department of the Navy's acquisition process ensures technology insertion into important programs. Some examples include:

F/A-18 E/F.—Throughout the development of the F/A-18E/F, the insertion of key technological capabilities and sensible systems engineering trade-offs were made resulting in an affordable aircraft that is second to none. Its use of current and cutting-edge technologies make it a cost effective aircraft with sufficient growth potential to meet long term threats and evolving requirements. For example, the extensive use of composite materials in an enlarged airframe, combined with a new engine, extended the range of the Super Hornet by 40-50 percent, greatly improved its ability to stay "on station" in support of ground forces, and increased its weapons payload over that of the F/A-18C/D. The combination of radar cross-section reduction, defensive electronic countermeasures, better endurance, and integration of standoff weapons improved survivability in a balanced, affordable way. It has vastly superior offensive capabilities due to the integration of joint standoff guided munitions, combined with sufficient growth margins to accept next generation electronics and weaponry.

CVX.—This next generation nuclear-powered aircraft carrier is scheduled to begin construction in 2006 to replace *Enterprise* (CVN 65). To accomplish the dramatic technological changes which are envisioned, CVX will begin a formal 5-6 year design process in 2000. This process will include a comprehensive research and development effort to determine the best CVX big-deck carrier design. The result of this

study will be a carrier that has substantially lower life cycle costs, improved capabilities, and more flexibility. The new carrier fleet must accommodate a dynamic range of missions in an increasingly uncertain world. CVX, with a projected 50 year life, will be the centerpiece of a carrier fleet that will lead naval aviation well into the next century.

New Attack Submarine (NSSN).—NSSN will be the most technologically advanced submarine the Navy has developed, with built-in flexibility to ensure easy insertion of new technologies. Additionally, it is being designed and built with a host of advanced technology systems that can be broadly grouped into four categories:

- Operational-Requirements: new technologies, such as the lightweight wide-aperture array, and a more advanced electromagnetic silencing system that support warfighting improvements.
- Affordability: technologies that reduce overall cost, such as modular isolated deck structures, an open-system architecture command and control system for easy technology upgrades, and a “life of the ship” reactor core.
- Re-engineering: use of existing submarine technology that can be scaled to the NSSN, such as the ultraquiet, high-power-density main propulsion unit, and weapons launch and handling system components, which will be smaller, fewer, and less expensive than those on *Seawolf* (SSN 21).
- Environmental Requirements: technologies to set the standard in environmental compliance, such as non-ozone depleting air-conditioning plants and less hazardous hull coatings.

DD-21.—DD-21, the designation given to the first ship in the SC-21 class Land Attack Destroyer, will represent a dramatic advance in precision strike and naval surface fire support for forces ashore. By including industry early in the design process, many of the ship characteristics and systems designs will exploit leading-edge commercial technologies and commercial supportability. The ship will possess a single, fiber-optic based, real-time distributed computing environment, using commercial off-the-shelf (COTS) processors and user-friendly common displays. This system alone will significantly reduce the number of Sailors required to operate, maintain and support the ship. The integration of Joint C⁴ISR systems will permit the creation of a real-time tactical picture needed to respond to calls for fire from troops ashore in a timely and accurate manner. An advanced multifunction radar, fully integrated shallow-water-capable sonar system, cooperative engagement capability, and extended-range guided munitions will ensure that DD-21 plays a significant role in supporting three-dimensional battlespace dominance, at sea and ashore. In order to operate extensively in the littoral, DD-21 will possess full-spectrum signature reduction, active and passive self-defense systems, and will incorporate cutting-edge survivability features. A highly efficient hull form, along with fuel efficient propulsion, will support significant reductions in operating costs.

MV-22 Osprey.—The MV-22 Osprey is a revolutionary, advanced technology, vertical and short takeoff and landing (V/STOL), multipurpose aircraft that provides the performance of a turboprop transport with the hovering capability of a helicopter. With more than 78 percent of the MV-22's load-bearing structural weight fabricated from composites, the aircraft is more than 700 pounds below the specification weight. Increased reliability and maintainability have been part of the MV-22 design process from the start. Maintenance, as all other aspects of MV-22, has been tested for human factors such as adequate access, reduction of MV-22 unique tools, and use of on board monitoring systems that determine when components need replacement by providing extensive fault-detection capabilities. The MV-22 construction also incorporates many features that enhance its combat survivability, including: composite structural components that provide increased ballistic tolerance; triple-redundant, digital fly-by-wire flight controls; and a cabin overpressurization system that provides chemical and biological protection.

Advanced Amphibious Assault Vehicle (AAAV).—The AAAV uses the most power-dense diesel engine in the world. The AAAV also is the first U.S. combat vehicle to use fully retractable hydro-pneumatic suspension units, providing land mobility equivalent to or better than the M-1A1 main battle tank. For high-water speed propulsion, the AAAV uses two newly developed internal 23-inch waterjets. Speeds in excess of 20 knots are achieved by retracting its suspension and deploying appendages to create a large planing surface. The AAAV is incorporating recent advances in embedded training and electronic technical-manual technologies, as well as state-of-the-art diagnostics capabilities. The vehicle incorporates the newest nuclear, biological and chemical protection system, and it has a fully stabilized turret capable of mounting a variety of weapons that are more accurate and lethal than currently fielded weapons. Finally, the AAAV armor is composed of state-of-the-art ceramic tile on advanced composites, providing ballistic protection while reducing the vehicle's weight.

Joint Strike Fighter (JSF).—JSF represents a Department of Defense initiative to produce an advanced aircraft with extensive capabilities at a minimum cost. Advances in technology promise to create an aircraft with substantial combat mission radius, high survivability against air defenses, and a potent payload. Advances in electronics, composite materials, flight control design, aircraft propulsion, and manufacturing processes are at the core of these capabilities. Technological innovations will allow JSF to be a multi-role aircraft capable of maritime operations as well as short-take-off and vertical-landing flight operations.

Non-Lethal Weapons Development.—The four services and the U.S. Special Operations Command have joined together in an effort to field quickly a low-cost alternative to lethal weapons.

The Commandant of the Marine Corps, as the Department of Defense's executive agent, has taken several aggressive steps to organize and coordinate the efforts in this critical area. The Joint Non-Lethal Weapons Directorate serves as the focal point for all DOD nonlethal weapons activity, as well as a clearinghouse for exchange of unclassified information on nonlethal technologies with other U.S. agencies and foreign governments. Efforts to date have provided operational forces with non-lethal weapons, to include: 40 mm sponge, sting-ball, and foam baton rounds; tactical water cannons; and hand grenade dye markers.

Research and Development Opportunities

History has demonstrated that superior technology can provide a decisive edge in warfighting. The Department's fiscal year 1997 science and technology program developed new technology options to meet the worldwide spread of warfare capabilities. Basic research programs expanded our fundamental knowledge of maritime sciences and engineering, materials, and information sciences; our applied research exploited and evaluated technology options for specific naval problems; advanced technology development programs demonstrated the operational capability of new technologies—as stand-alone systems and as enhancements to existing systems; and our manufacturing technology programs worked to ensure novel technologies can be affordably manufactured.

Because technology opportunities always are richer than the available resources, funds were leveraged through partnerships with the other services, government agencies, academia, and industry for many programs. For example, successful fiscal year 1997 program partnerships included the joint countermine advanced concept technology demonstration; SandyDuck 97, a comprehensive field study of coastal dynamics, an area vitally important for nearshore naval operations; the thermal spray nanoscale coatings initiative, which developed a new coating for ships, aircraft, and land vehicles to prevent wear and erosion; and the power electronic building blocks program, which promises to revolutionize naval and commercial power systems.

During fiscal year 1997, basic naval research investments had global implications, including the discovery of the atom laser, successful testing of a combination of anti-rejection drugs for transplant recipients, and a Nobel Prize winner in chemistry. Navy medical researchers continue to work on several initiatives to reduce the number of battlefield deaths from loss of blood. These efforts will not only improve delivery of lifesaving blood products to casualties in a combat environment, but also would relieve the logistical demands of storing and regularly replenishing different blood types.

While our future adversaries may not be known, it is very clear that emerging technologies have forever altered our concept of future conflicts. The role of technology and our ability to exploit its advances demands that the Navy and Marine Corps maintain a robust science and technology program to research, develop, apply, and perfect revolutionary technologies. It is imperative that the Department of the Navy support a solid basic and applied research effort so that tomorrow's conflicts are fought with the most technologically advanced systems available.

Exploiting Technology to Improve Training

Increased use of distributive training and distance learning and technology have the potential to change dramatically the way we train and educate Sailors and Marines. Just as modern weaponry has influenced warfighting, investments in education technology will shape the way in which we teach and train our force. Sailors and Marines from around the globe, ashore and at sea, will have continual access to instructors and educators previously available only to resident students. The Department's training and education plans emphasize that an investment in modernization and recapitalization in educational technology will improve training effectiveness for better performance and operational readiness of our fighting force.

The Department is exploring a variety of advanced technologies for developing and delivering instructional products where they are most needed. In the near fu-

ture, Sailors and Marines can expect to use the internet and intranets, learning resource centers (LRC's), interactive multimedia instruction (IMI), video tele-training (VTT), and embedded training (ET) to learn new skills.

The Navy modeling and simulation (M&S) roadmap focuses on utilizing M&S tools to enhance operational training, in port and under way. Current Navy M&S initiatives include: research, evaluation, and system analysis (RESA) maritime simulation, which is used to replicate naval systems and movements in wargaming; and the enhanced naval wargaming system (ENWGS). ENWGS is a computer-based simulation system which provides realistic wargaming in all aspects of naval warfare, from the tactical to strategic level of play, and provides pertinent decision-making training for battle group staffs. The next-generation M&S training tool is the joint simulation system (JSIMS). JSIMS-Maritime will be the primary M&S tool to support operational training, education, mission rehearsal, and doctrine development. The Marine Corps received an addendum to the Joint ORD to include Marine Corps specific requirements. It also will complete the JSIMS-Maritime concept of operations and initiate its conceptual modeling effort. Finally, interactive multi-sensor analysis training (IMAT) is revolutionizing undersea warfare training. IMAT uses advanced computer visualizations of threat platforms, environmental effects, and sensor/processor systems, to build conceptual training for complex sensor operation and tactical planning tasks. IMAT has been adopted by aviation warfare and by ship sonar technician apprentice schools, and is being used in 13 advanced courses.

The Marine Corps modeling and simulation master plan (MCMSMP) articulates M&S vision, objectives, and management framework for Marine Corps. The Marine Corps M&S investment strategy (MCMSIS) delineates the Marine Corps plan to achieve the desired M&S end state. These documents provide a common structure for coordinating M&S within the Total force, and will be combined into a single comprehensive plan in early 1998. Examples of progress under the MCMSMP and MCMSIS include the construction of a Range Instrumentation Systems Concept Exploration Experiment at the Marine Corps Air-Ground Combat Center in Twentynine Palms, California. This experiment led successfully to the production of the Operational Requirement Document for Range Instrumentation Systems. Additionally, Marine Corps is fully vested in high level architecture compliance mandated by the Department of Defense, in close coordination with the Navy.

EFFICIENCY: EXPLOITING THE REVOLUTION IN BUSINESS AFFAIRS

Acquisition Reform

The Department of the Navy's research, development and acquisition team continues to be the engine for developing, procuring and supporting technologically superior and affordable systems for the Navy and the Marine Corps, as well as joint and allied forces. These critical goals are being attained through strategic acquisition reforms, the application of a range of tools, and the implementation of the Federal Acquisition Streamlining Act and the Clinger-Cohen Act.

The Department of the Navy is confronting key management issues and developing tools such as "cost as an independent variable" (CAIV) to reduce total ownership costs. Acquisition specialists are inserting commercial dual-use technologies into fielded weapon systems, to make operations and support costs more affordable. The Department is accelerating the move from military specifications and standards to performance-based specifications through Navy-developed software tools such as TURBO STREAMLINER, SPECRIGHT!, and the Single Plant Process initiative.

Acquisition Center of Excellence.—The Department of the Navy is committed to developing the infrastructure that enables large distributed work teams to produce higher quality systems at reduced cost over a shorter period of time. The embodiment of this commitment is the Acquisition Center of Excellence (ACE), an institution that will serve as a test bed and development site for the Navy's simulation-based acquisition (SBA) effort. The SBA initiative is expected to revolutionize the design and procurement of major systems, thus reducing total life-cycle cost and acquisition time.

Acquisition Work Force.—Today's acquisition workforce is approximately half the size it was in 1989, numbering 95,895 as defined in the Fiscal Year 1998 DOD Authorization Act at the end of fiscal year 1997. Reducing the work force has been steady and controlled, accomplished largely through retirement incentives, base realignment and closure actions, and organizational restructuring. At the same time, procurement has become more technologically complex and the expectations of the fleet even greater. As we further reduce manpower levels to 86,868 by the end of fiscal year 2003, it is imperative that the acquisition force structure be composed of the right people, with a balanced education, training, and skill mixture.

The Department has had difficulty over the past several years bringing young people into the acquisition field. To meet this challenge, the Department implemented a plan during the past year that triples the acquisition intern program. This initiative should help to ensure the availability of highly qualified people to fill senior acquisition positions.

Acquisition Reform Success Stories.—The Department's bold approach is reflected in many successes. Some examples include:

—*F-14 Precision Strike Fighter Team.*—This program has demonstrated what teamwork and innovative thinking can accomplish. Partnering with Lockheed Martin, the team used the LANTIRN targeting system to give the F-14 a night and precision-guided munitions delivery capability. The first fully operational system was deployed 223 days after contract award, two years ahead of schedule. By using commercial off-the-shelf technology, the team realized significant savings estimated as more than \$173 million.

—*Chemical Biological Incident Response Force.*—The Marine Corps Systems Command rapidly procured and fielded a suite of equipment to support Marine Corps Chemical Biological Incident Response Force (CBIRF) requirements. Using an abbreviated acquisition program (AAP) strategy, commercial-off-the-shelf (COTS) and non-developmental items (NDI) were examined. Equipment for the CBIRF was acquired to fulfill mission-critical and mission-essential requirements. Procurement and delivery of equipment to CBIRF was accomplished in less than nine months time.

Joint Maritime Communications Strategy (JMCOMS).—JMCOMS will provide an extensive communications infrastructure to meet tactical and support communications requirements. Capabilities range from real-time transmission of intelligence and weapons targeting data to the ability of our men and women at sea to communicate directly with loved ones at home. The Navy has reduced system acquisition time from 4–7 years to less than 2 years. Using innovative architecture, one key subsystem—the UHF miniaturized digital assigned multiple access (mini-DAMA) terminal—achieved savings estimated at 50 percent of acquisition costs and 30 percent of total life cycle costs, compared to previous terminals.

Multifunctional Information Distribution System (MIDS).—This multinational cooperative development program is aggressively using open systems architecture, commercial products, innovative acquisition streamlining techniques, and cost as an independent variable. The terminal architecture implements nonproprietary open commercial standards that will facilitate technology insertion throughout the life cycle of the program. The average recurring unit cost of MIDS has been reduced from an early estimate of \$428,000 to well below \$250,000. The technical and costs management success of the program has attracted the attention of numerous European nations.

Tactical Air Moving Map Capability (TAMMAC).—The TAMMAC team developed an integrated acquisition and logistics concept that emphasized current technology, standardized unit configuration for all aircraft, minimized use of military specifications and maximized use of commercial-off-the-shelf hardware and organization-to-commercial depot maintenance. Traditional internal configuration control responsibility for system components was transferred to the original equipment manufacturers, improving the visibility of manufacturing resource and industrial base issues. The TAMMAC cost savings estimates are more than \$360 million over the life of the system, with an 83 percent reduction of required spares.

Infrastructure Reform

Infrastructure reductions have not kept pace with force-structure reductions. Previous reductions in infrastructure as a result of the Base Realignment and Closure (BRAC) process have proved helpful in bringing fleet and force support costs down. Additional reductions under a similar program are needed to bring our infrastructure in line with our smaller force. To this end, the Department is conducting an ongoing review of our organizations and our policies for operations, maintenance, personnel, and training. We must run our "businesses" much as the private sector does—with a minimum of duplication and red tape, and a maximum of service and responsiveness. Any efficiencies gained through a leaner infrastructure can be invested in force modernization and readiness.

Two issues are critical to our efforts to increase efficiency: our regional maintenance strategy and the application of state-of-the-market business practices to reduce infrastructure costs.

Regional Maintenance Strategy.—The regional maintenance strategy implements a fundamental restructuring and consolidation of our shore maintenance capabilities. During the past 3 years, the Navy has established 7 regional maintenance centers. These new maintenance organizations have contributed significantly to main-

taining high deployed fleet readiness despite a challenging operational tempo, base realignments and closures, repair ship decommissionings, and decreased resources.

By aggressively executing the Navy's regional maintenance strategy, our industrial resources are more fully utilized, particularly in the repair and maintenance depots. Regional repair centers are moving into depots and are jointly manned by civilian and military technicians. Consequently, regional facility footprints and associated expenses are being reduced. Job planning, coordination, material support, and information distribution improvements and integrations are well under way. For example, the most recent pilot initiative at Pearl Harbor, Hawaii, provides a methodical, phased approach to integrate completely the resources of the Naval Intermediate Maintenance Facility and Pearl Harbor Naval Shipyard into a new maintenance organization. The resulting consolidated workforce forms a common manpower resource pool that can be efficiently and effectively assigned as required. A project management strategy will be used that is both responsive and cost efficient for all types of repair and maintenance work.

State-of-the-Market Business Practices.—The first step to implement new business practices is to create an organizational structure that accelerates positive process changes. Second, we need to improve installation management by focusing on business perspectives of efficiency, price competition, and customer satisfaction. Some examples include:

—*Marine Corps Continuous Process Improvement Program.*—The Marine Corps Continuous Process Improvement Program (MCCPIP) is the agent for re-engineering key business processes of the combat development system (CDS). The CDS translates concepts and requirements into integrated capabilities, which in turn constitute the building block elements of Marine air-ground task forces.

—*Cruise Missile Command and Control Program Office.*—This program office teamed the Department of the Navy with the Defense Logistics Agency and Federal Express to build a logistics support system that increased material readiness while reducing logistics costs. The initiative has been a success: the average transit time for material being requested by ship has been reduced from 32 to 6.5 days, and overall cost avoidance to date is nearly \$13 million.

Other examples of initiatives which are expected to improve operational or administrative efficiencies and reduce costs include:

Outsourcing.—In 1996, the National Performance Review (NPR), the Commission on Roles and Mission (CORM), the Defense Science Board (DSB), the CNO's Executive Panel and the Center for Naval Analysis (CNA) recommended outsourcing non-core functions as a means of reducing overall costs of operations, improving business processes across the Department of Defense infrastructure, and recapitalizing those savings for modernization. The Department of the Navy has incorporated a comprehensive plan to reduce infrastructure costs through competition, privatization, and outsourcing. An estimated 80,500 full-time equivalents (FTE's) from the Navy and 5,000 FTE's from the Marine Corps have been programmed for study over the future years defense plan. The Navy initiated studies in fiscal year 1997 on over 10,500 FTE's and plans to study more than 15,000 FTE's in fiscal year 1998, with more in successive years.

Activity Based Costing (ABC).—ABC properly allocates all direct and indirect costs for identified services and enabling management. ABC also identifies and improves processes for reducing costs, raises cost consciousness, justifies budgets, satisfies informational requests from higher headquarters, and facilitates outsourcing cost comparisons. The Marine Corps has implemented ABC throughout the facilities maintenance organizations at continental U.S. (CONUS) installations and will expand this capability to logistics and supply organizations over the next 2 years.

Marine Corps Force Structure Review Groups.—For years, the Fleet Marine Forces have been operating below targeted manpower levels as we struggled to balance structure requirements against available Marines. Using the Quadrennial Defense Review as an opportunity for a self examination of roles, missions, and capabilities, the Marine Corps focused on how best to organize for the challenges of the 21st century. The major objective of the active duty and reserve force structure review groups was to identify and make recommendations to remove force structure which no longer contributed significantly to the Marine Corps' warfighting capability. The successful attainment of the objective led to reductions in supporting establishment billets and an increase to a 90 percent manning level in the Fleet Marine Forces.

In addition to the review groups, the Total Force Structure (TFS) Division was formed at Marine Corps Combat Development Command in June 1997. This organization is continuing the evaluation of Marine Corps organizational posture as it relates to available billet structure and equipment. The review process involves a close

examination of the mission of each combat or supporting establishment element, its organization, equipment, and the manpower required to accomplish that mission.

Regionalization.—The Navy has embarked on an aggressive effort to reinvent the operation and management of our shore establishments to free resources for readiness and modernization. The Chief of Naval Operations, fleet commanders, major claimants, and naval base commanders are conducting detailed analyses in Navy concentration areas to consolidate installation management functions. The goal of regionalization is to reduce base operating support costs through the elimination of unnecessary management layers, duplicative overhead, and redundant functions. Regionalization also facilitates better work force utilization, opportunities to outsource across an entire region, standardization of processes, and regional planning and prioritization.

In another effort, Department of Defense components were directed to regionalize base-level civilian personnel functions and reduce manpower to a 1:100 ratio between personnel specialists and the serviced population. Attainment of this servicing ratio requires reducing (by approximately 45 percent) the number of employees providing base-level civilian personnel services by the year 2001. Regionalization provides a return on investment by standardizing human resource services and eliminating duplication.

Challenge of International Programs

Through international programs, the Department of the Navy provides assistance to America's allies and partners. Such diverse programs as Foreign Military Sales (FMS), leases, and grants of defense articles and services; cooperative programs, which promote bilateral interaction on a broader scale; protection of key technologies while facilitating release authority for transferable technologies; and training and education, produce mutually favorable relationships. Examples of the benefits produced by participation in international programs include:

- Cooperative research and development (R&D) projects reduced Navy R&D costs by more than \$1.6 billion since 1987;
- FMS reduces unit costs: Foreign sales of F/A-18 reduced the per unit cost by \$2.1 million, saving \$2.3 billion since 1979;
- Foreign comparative testing leverages foreign non-developmental items: Existing systems and platforms like the F-14 Tomcat are modernized with digital flight control systems;
- Security assistance helps sustain industrial base: Numerous production lines are sustained by foreign sales.

Supporting U.S. industry and obtaining maximum results from increasingly constrained national resources are key challenges. The Department must join more efficiently and flexibly with allied nations to accomplish critical technology advances. The core element necessary to meet this challenge is early engagement of allies, during the missions needs analysis stage, to identify common mission problems and acceptable performance requirements.

Recognizing the benefits as well as challenges, the United States and its allies are increasing efforts to achieve desired efficiencies and improved warfighting effectiveness through international programs.

Environmental Issues

Effective environmental planning to meet the requirements of environmental statutes, executive orders, and regulations is essential for facilities management, acquisition programs, and military operations. Department strategies for establishing partnerships with regulators, stabilizing funding, and reducing the cost of cleanup at active and closing bases are paying dividends. The cleanup program cost-to-complete estimate continues to show reductions.

In the area of environmental protection, the Department has made substantial progress with respect to shipboard pollution control. A solid-waste plan was developed for surface ships in order to comply with the Act to Prevent Pollution from Ships. A submarine addendum to this plan is in development. Meanwhile, the Department is coordinating with the Environmental Protection Agency (EPA) and coastal states to create uniform national discharge standards for military vessels. At shore installations, the Department continues to serve as the Department of Defense executive agent for Clean Air Act and Clean Water Act implementation. The Department works closely with EPA and states to ensure both compliance and protection of the military mission. The Department is achieving its natural resources conservation goals by emphasizing stewardship of natural resources, preserving biological diversity, and developing partnerships for conservation.

PROGRAMS

The following paragraphs describe the key programs involved in building the naval forces that support and defend U.S. interests. These programs represent an integrated—although unprioritized—snapshot of the diverse capabilities necessary for the Navy-Marine Corps team to conduct a wide range of missions.

Shipbuilding and Naval Weapons Programs

Aircraft Carriers.—Twelve aircraft carriers form the centerpiece of naval global forward presence and striking power. *Harry S Truman* (CVN 75) currently under construction at Newport News Shipbuilding, is expected to be commissioned in fiscal year 1998. At that time, the Navy's oldest active commissioned carrier, *Independence* (CV 62), will transition to the inactive fleet. The keel for *Ronald Reagan* (CVN 76) has been laid for a fiscal year 2002 delivery, and CVN 77 will enter the fleet in fiscal year 2008, as the two remaining *Kitty Hawk*-class carriers are retired. CVN 77 is being designed to serve as a "transition carrier" to the CVX, incorporating new technologies and process design changes that will move naval aviation to a future carrier design. The CVX will be commissioned in 2013, in time to replace *Enterprise* (CVN 65), which will reach the end of its service life at 52 years. CVX will be the most technologically advanced nuclear-powered carrier the Navy has ever developed. It will employ technologies that reduce operating costs yet improve its warfighting capabilities. Better survivability, more flexibility through an open architecture command and control system, an advanced aircraft launch and recovery system, a state-of-the-art propulsion system, and reduced manning will be incorporated in the new design. It will facilitate joint and combined operations and will give the nation a more flexible and less costly big-deck aircraft carrier for the next century.

Amphibious Lift.—The current amphibious lift modernization plan is formed around the 12 amphibious ready groups (ARG's) needed to meet the nation's forward-presence and contingency requirements. The plan includes the fiscal year 1998 delivery of *Bon Homme Richard* (LHD 6) and *Pearl Harbor* (LSD 52)—the final *Harpers Ferry* (LSD49)-class ship—and the fiscal year 2001 delivery of *Iwo Jima* (LHD 7). The *San Antonio* (LPD 17) class of ships, another critical piece of our future amphibious force, will begin delivery in fiscal year 2002. The LPD 17 class incorporates major improvements in command-and-control and ship self-defense systems, which will increase its ability to operate independently of the ARG when required. This class is the critical link in achieving the goal of a modern 12-ARG force. LPD 17 is the functional replacement for aged amphibious platforms including: LPD 4, LKA, LST, and LSD 36 classes of ships. This acquisition plan is key to maintaining the 2.5 Marine expeditionary brigade equivalents of lift, currently met by using marginal Naval Reserve Force and inactive ship maintenance facility assets. Construction of LPD 18, the second ship of the class, is scheduled to begin in fiscal year 1999 with procurement of two additional ships planned for fiscal year 2000.

New Attack Submarine (NSSN).—NSSN plays a pivotal role in the Navy's recapitalization plan. In fiscal year 1998, the Navy begins NSSN construction at a low but efficient rate in order to build adequate numbers of our next generation of quiet submarines. The NSSN counters the proliferation of advanced-capability submarines and establishes the foundation for better technology insertion into the submarine force. New modular-construction techniques and a contract-teaming plan combine with an innovative design process to fundamentally enhance the production quality and the affordability of this ship. Features include:

—*Open Systems Architecture.*—Using widely available public-domain standards, the combat, communication, and information systems will have industry-standard interfaces that offer portability and software reuse to simplify cost-effective upgrades.

—*Fiber Optic Cable Systems.*—A platform-wide fiber optic cable installation will be sized for future growth. The structure of the network simplifies the attachment and integration of new equipment in a plug-in/plug-out manner.

—*Commercial-off-the-Shelf (COTS) Electronics.*—Use of commercially available electronics leverages the growth in signal and information processing and display technologies occurring in industry.

—*Isolated Deck Structure.*—This design facilitates ease of equipment integration, provides shock and acoustic isolation sufficient to allow the use of COTS technology, and incorporates emerging noise-control technologies.

Seawolf (SSN-21)-Class Submarine.—*Seawolf* performed superbly during initial sea trials in July 1996, demonstrating the fastest, stealthiest characteristics of any submarine at sea. *Seawolf* will enhance significantly U.S. undersea superiority even against our most capable adversaries.

SSN 688 Class Submarine Modernization.—SSN 688-class submarines, which will comprise 68 percent of the attack submarine force in 2015, must be modernized to ensure that they remain effective against increasingly sophisticated undersea adversaries. The use of COTS and open systems architecture (OSA) will enable rapid (annual) updates to both software and hardware, and the use of COTS-based processors means that sonar system computing power can grow at the same rate as commercial technology.

A-RCI is a four-phased transformation of existing sonar systems (AN/BSY-1, AN/BQQ-5, or AN/BQQ-6) to a more capable and flexible COTS/OSA-based system. It also will provide the submarine force with a common sonar system. The process is designed to minimize the impact of fire-control and sonar system upgrades on a ship's operational schedule, and will be accomplished without the need for major shipyard availabilities. Phase I, which commenced in November 1997, will enhance towed-array processing. Phase II will provide additional towed- and hull-array software upgrades. Phase III will upgrade the spherical array, and Phase IV will upgrade the high-frequency sonar system on SSN 688I-class submarines. Each phase installs improved processing and control and display workstations. The current installation plan completes all SSN's through Phase III by fiscal year 2003.

Maritime Prepositioning Force (MPF).—Procurement of three additional MPF ships, known as MPF enhancement (MPF(E)), will provide Marine air-ground task forces (MAGTF's) enhanced capability in naval construction, medical support, and expeditionary-airfield construction. The first two MPF Enhancement ships, USNS 1st Lt Harry L. Martin and USNS LCpl Roy M. Wheat, are expected to be delivered in fiscal year 1999. A contract award for the third ship is expected in fiscal year 1998.

Arleigh Burke (DDG-51)-Class Destroyer.—The DDG 51 class, along with its companion class of CG 47 Aegis cruisers, provide sea control and battlespace dominance—to include joint force air defense for carrier battle groups, surface action groups, amphibious ready groups, and joint expeditionary forces. To keep pace with advancing technologies and stay ahead of emerging threats, the Navy constructs Aegis destroyers in flights, to introduce improvements in combat capability in a disciplined, but expeditious process. Twenty-one destroyers already are in commission. We expect to build a total of 57 *Arleigh Burke*-class destroyers. The Aegis destroyers requested under the multiyear procurement plan will incorporate Flight IIA warfighting advancements, including improved surface-to-air missiles (SM2 Block IV and Evolved Sea Sparrow), embarked helicopters, and the battle force tactical trainer. The first Flight IIA destroyer, DDG 79, is presently under construction. Future ships will include other essential improvements such as the AN/SPY-1D(V) littoral radar upgrade, cooperative engagement capability, and theater missile defense capability. The *Burke*-class destroyers will represent the largest component of the early 21st century surface-combatant force.

Aegis Cruiser Modernization and Conversion.—Capitalizing on the substantial investment made in our battle-proven Aegis cruisers, the Navy will modernize these highly capable ships through a series of mid-life conversions to install area theater ballistic missile defense, two 5 inch/62 Mk 45 Mod 4 guns, area air defense commander (AADC) capability, and smart ship control systems.

Naval Fires.—Fire-support requirements for the future are being addressed by gun technologies and wedded global positioning systems (GPS) that will enable surface ships to engage targets ashore at ranges of more than 60 miles. The cornerstone of our near-term effort is the extended-range guided munitions (ERGM) and the 5 inch/62 Mk 45 Mod 4 gun mount program. The ERGM is a five-inch projectile that incorporates a rocket motor and internal GPS coupled with an inertial navigation system (INS). The 5 inch/62 Mk 45 Mod 4 gun mount is a modified five-inch gun mount designed to handle, load, and fire the ERGM. Initial testing of the ERGM and 5 inch/62 gun components proved successful in fiscal year 1997.

Other promising gun technologies for the longer term include the microminiaturization of guidance components and composite material technology. Combined, these technologies both will reduce the cost of precision-guided gun munitions and extend their range to targets up to 100 nautical miles away. Research-and-development funding has been allocated to develop these capabilities for future application to both the ERGM program and a 155 mm advanced naval gun planned for installation on the next-generation surface combatant (DD-21).

The Navy is considering a variety of missiles to meet the ground forces requirements for responsive, longer-range naval surface fire support (NSFS). Two potential solutions—the Navy tactical missile systems (NTACMS), a naval variant of the Army tactical missile system (ATACMS), and the land attack standard missile (LASM), a surface-to-ground variant of the Navy's family of STANDARD Missiles—are being evaluated as options to fill the land attack missile role.

Land Attack Destroyer (DD-21) (First of the 21st Century (SC-21) Surface Combatants).—The SC-21 analysis of alternatives (AoA) completed examination of future surface combatant mission requirements and alternatives for providing those requirements. The AoA found that a class of multi-mission ships focused on supporting land attack, and possessing hull and mechanical/electrical systems in common with the follow on to retiring Aegis cruisers, provided the required capabilities at the lowest life-cycle cost.

Key performance features identified in the AoA and reflected in the DD-21 operational requirements document (ORD) include: more vertical launch cells dedicated to long-range precision-strike and shorter range fast-interdiction missiles; guns capable of firing extended range guided munitions; improved survivability against antiship cruise missiles, torpedoes, and mines; full-spectrum signature reduction; a single, survivable, fiber-optic-based, real-time distributed computing environment, using commercial off-the-shelf (COTS) processors and user-friendly common displays; a fully joint interoperable C⁴ISR system; a fuel-efficient propulsion system; and significantly reduced ship manning, which lowers operating and support costs. Current acquisition plans call for DD-21 to be designed using an integrated industry/Navy team. Key production features likely will include: a more affordable hull design; COTS-based systems; design features to facilitate rapid and cost-effective system upgrades; condition-based maintenance monitoring; commercial supportability; and embedded training programs.

Surge Sealift.—Surge shipping is the immediate transportation of heavy military equipment that ground forces need to meet warfighting requirements. A total of 19 prepositioning or surge large medium-speed (LMSR) roll-on/roll-off (RORO) ships will be required. Fourteen LMSR's will be acquired through new construction. Five more have been converted from existing container ships. The LMSR's will provide afloat prepositioning of an Army heavy brigade's equipment and a corps' combat support, as well as surge capability for lift of a heavy division's equipment from the United States. The LMSR's can load/offload in 96 hours, with a total lift capacity of five million square feet—three million square feet of surge sealift and two million square feet of prepositioning sealift—a significant part of DOD's overall sealift capability. Each ship can carry 300,000–400,000 square feet of unit equipment at 24 knots over a 12,000 nautical-mile range. The lead ship in the class of new construction RORO's, USNS *Bob Hope* (T-AKR 300), is scheduled for delivery in 1998. Delivery is scheduled for all remaining ships by the end of fiscal year 2001.

Mine Warfare.—Mine Warfare is an essential warfare capability integral to the ability of naval forces to open and maintain sea lines of communication and to dominate the littoral battlespace. An imposing array of modern mine-countermeasures (MCM) systems continues to be developed and procured to enhance the capabilities of dedicated forces and vigorously pursue the transition to an organic MCM capability. The Navy's dedicated MCM forces, composed of active and reserve surface MCM ships, MHC ships, MCM helicopters, and explosive-ordnance-disposal divers are among the best in the world. With the addition of the MCM command-and-support ship *Inchon* (MCS12), the Navy possesses a true expeditionary mine counter-measures capability.

Aggressive development of organic MCM systems for forward-deployed carrier battle groups and amphibious ready groups is under way. Focused science, technology, and developmental efforts are producing solutions to difficult mine-warfare problems. For very shallow water, the shallow-water assault breaching system (SABRE) system and the Distributed Explosive Technology net system are in development for delivery in fiscal year 2001. These complementary systems are designed to defeat mines and obstacles in the difficult surf-zone region.

Contributions from organizations outside the traditional mine-warfare community are augmenting dedicated and organic MCM capabilities. For example, the Oceanographer of the Navy collects and disseminates environmental data essential to effective mine countermeasures. Mine warfare-relevant emphasis in projects dealing with MCM digital-route surveys; maintenance of a global mine-like contact database; and development of mine warfare-specific environmental databases augment our ability to rapidly assess, avoid, or neutralize the sea-mine threat.

Unmanned Undersea Vehicles (UUV).—The Unmanned Undersea Vehicle (UUV) program will extend knowledge and control of the undersea battlespace through the employment of clandestine off board sensors. Although significant progress is being made with on board sensors, it is clearly preferable to have off board sensors to image tethered, volume, and bottom mines accurately. Complete knowledge of the mine threat, without unduly exposing reconnaissance platforms, is vital to exploiting the tactical benefits of maneuver warfare.

The Near-Term Mine Reconnaissance System (NMRS) is a mine-hunting UUV launched and recovered from a SSN 688-class submarine's torpedo tube, and pro-

vides a first-time capability. The UUV, in combination with an SSN, represents a long-endurance, clandestine reconnaissance system capable of mapping the undersea environment and providing time-sensitive information on mining activities to the theater commander. The NMRS will provide an effective and much-needed capability to the fleet in fiscal year 1998.

The Long-Term Mine Reconnaissance System (LMRS) will leverage developing technologies and lessons learned from the NMRS. The LMRS also will be launched and recovered through a submarine's torpedo tube and will incorporate enhanced endurance, range, search rate, and total search-area coverage.

Tomahawk.—The Tomahawk cruise missile enables surface combatants and submarines to launch attacks against land targets from long ranges in all types of weather. The fiscal year 1999 budget includes funds to procure 114 remanufactured Tomahawk missiles—15 in the Block III configuration, which includes the Global Positioning System, and 99 in the Block IV (Phase I) Tomahawk Baseline Improvement Program configuration, providing improved terminal guidance and precision strike capabilities. Last year, the Department proposed initiating a major revision to the Tomahawk program, called the Tactical Tomahawk Initiative (TTI). Through design and construction techniques, the TTI would provide new-production missiles with enhanced capabilities at a lower unit cost than would be possible with remanufactured missiles. Although the TTI program has not been incorporated in the fiscal year 1999 budget, it remains under active consideration and may be initiated later this year or as part of the DOD fiscal year 2000 budget.

Theater Ballistic Missile Defense (TBMD).—Sea-based Navy area and theater-wide TBMD systems will provide the United States, allied forces, and areas of vital national interest, defense against theater ballistic missiles (TBM's). There is a straightforward and compelling need to rapidly deploy defenses against TBM's on board naval ships at sea. First, the threat from theater-range ballistic missiles is real and growing. Second, ships take advantage of the inherent flexibility and mobility of being at sea. Ships do not require host nation permission or support which is critical to safe entry of our forces into overseas ports and airfields. This is increasingly important as more of our armed forces are becoming CONUS-based. Third, and equally important, the United States has the opportunity to capitalize on its significant investment in a fleet of highly capable Aegis cruisers and destroyers which deploy routinely to hot spots around the world.

Navy TBMD programs are founded on an evolutionary development strategy which leverages previous investments in the Aegis combat system, the standard missile, vertical launching systems (VLS), and existing communication systems to counter TBM threats. This builds on the solid foundation of Aegis ships, trained crews, and existing industrial and logistic infrastructure. A comprehensive review of Navy TBMD programs was recently completed, with the aim of developing a plan to accelerate the fielding of a credible, forward deployed, sea-based TBMD capability. Key interrelated programs that form the pillars of our acceleration strategy include: (1) increased procurements to accelerate TBMD forward fit and backfit of Aegis DDG's and CG's; (2) phased COTS-based improvements to the Aegis Combat System leading to a fully distributed architecture needed for Navy Theater Wide TBMD; and (3) upgrades to battle management and C⁴I necessary to execute TBMD in a joint force network centric environment.

The Navy area TBMD system, which will field a user operational evaluation system (UOES) called "Linebacker," on two Aegis cruisers in fiscal year 1999, will provide for engagement of TBM's in the terminal phase of flight. Aegis ships with the tactical area TBMD capability begin delivery in fiscal year 2001. The Navy theater-wide TBMD system will build on area system capabilities, adding an ascent and mid-course intercept capability that can provide defense for an entire theater of operations. Other advantages of ship-based TBMD include high survivability, rapid relocation, and self-sustainability. Both TBMD programs, as currently designed, are antiballistic missile treaty compliant.

Force Protection Systems.—Confining geography and the proliferation of antiship cruise missiles combine to make littoral operations particularly challenging. Force protection systems provide a layer of protection that enables battle groups to position themselves for successful mission execution. Key programs include:

—Quick Reaction Combat Capability/Ship Self-Defense System is a Navy plan that integrates and automates the detect-control-engage sequence, and provides layered force protection with electronic warfare and hard-kill weapons for ships. More than 20 acquisition programs combine to provide a quick-reaction combat capability (QRCC) and integrated command-and-control system. The QRCC system architecture integrates several existing stand-alone systems. The ship self-defense system provides multisensor processing, target identification, and an automated detect-control-engage capability. Shipboard sensors are linked to es-

- establish accurate, correlated, firm-track criteria as early in the detection phase as possible. Embedded electronic warfare doctrine automates soft-kill and hard-kill weapons for a rapid, layered defensive reaction to any detected threat.
- The Rapid Antiship Missile Integrated Defense System (RAIDS) complements the antiship-missile defense capabilities of *Spruance* (DD 963) and *Oliver Hazard Perry* (FFG 7)-class combatants. RAIDS is in production and has been installed in *Spruance* (DD 963). Installation in *Oliver Hazard Perry*-class ships commenced in fiscal year 1997.
 - The Rolling Airframe Missile (RAM) complements existing force protection systems, providing unique capability in adverse electronic countermeasures and advanced-threat environments. RAM is a lightweight, low-cost system that uses existing active and passive ship sensors to augment force protection firepower. RAM, a NATO-cooperative program with Germany, is in production and has been installed in the LHA amphibious assault ships. Installations are ongoing in LHD, LSD 41, and DD 963 class ships, and are planned in CG 47 through CG 73, CV/CVN, DDG 51 through DDG 78, and LPD 17 classes.
 - Phalanx Close-In Weapon System (CIWS) provides a fast-reacting final force-protection capability for surface ships against low-flying and steep-diving, high-speed antiship missiles. A high order language computer upgrade increases computer capacity and provides advanced fire-control processing against maneuvering targets. The Phalanx surface mode, which allows engagement of surface craft and low, slow aircraft, will complete testing in fiscal year 1998.
 - The Advanced Integrated Electronic Warfare System (AIEWS) (AN/SLY-2) program was accelerated by the CNO on May 14, 1996. AIEWS Increment 1 (advanced electronic support) is scheduled for fleet introduction in fiscal year 2002, and Increment 2 (advanced electronic attack) starts subsequent to the Increment 1 effort. AIEWS, as the replacement system for the AN/SLQ-32 shipboard electronic warfare system, will use open architecture, lowering investment costs and improving system effectiveness. Increment 1 provides improved human-computer interface, increased emitter processing capability, and precision ESM and specific emitter ID (SEI) in a new receiver package. Increment 2 will include an advanced electronic-attack subsystem and off board countermeasures.
 - The Evolved Sea Sparrow Missile (ESSM) is a cooperative effort among 13 nations to improve the ability of the Sea Sparrow missile to counter low-altitude, highly maneuverable antiship cruise missiles. The program takes the existing RIM-7P Sea Sparrow missile and adds a new rocket motor and warhead. The ESSM may be installed on LHD, CVN, and DDG 51 Flight IIA-class ships.
- Common Missile Development/Standard Missile.*—The Navy continues to build on the proven Standard missile family by adding capabilities to counter existing and emerging threats. Two new upgrades are in production:
- The SM-2 Block IIIB, approved for full-rate production in fiscal year 1996, incorporates a dual-mode seeker to provide an improved capability against missile countermeasures. It will be deployed on Aegis vertical launching system (VLS) cruisers and destroyers.
 - The SM-2 Block IV complements earlier SM-2 medium-range variants for Aegis VLS cruisers and destroyers. The newest variant, SM-2 Block IVA, builds on the Block IV missile to provide improved defense against cruise missiles and theater ballistic missiles.
- Trident D-5 Missile.*—To meet the requirement of the Nuclear Posture Review, four *Ohio*-class submarines currently equipped with the Trident I C-4 missile will be upgraded to carry the more capable Trident II D-5 missile. In addition, under the conditions of the START II treaty, the Navy's *Ohio*-class submarines will assume a role of growing importance within the strategic triad by carrying approximately one-half of the allowable strategic nuclear warheads.
- Integrated Undersea Surveillance System (IUSS).*—IUSS is comprised of fixed, mobile, and deployable acoustic arrays that provide vital tactical cueing to ASW forces. The IUSS is a model for innovation and smart use of technology. Work stations, enhanced signal processing, and modern communication technologies enable remote array monitoring, which reduces manpower costs and improves efficiency.
- The Sound Surveillance System (SOSUS) provides deep-water long-range detection capability. Consolidation of SOSUS by array re-termination, remoting, or closure was completed in fiscal year 1997. Recent closures include Bermuda, Adak, and Keflavik. All other arrays will remain operational.
- The Surveillance Towed-Array Sensor System (SURTASS), a prototype twin-line array, was tested with outstanding results in a variety of locations around the world. SURTASS is far superior to any other shallow-water passive towed-array system. SURTASS processing is being transferred to the AN/SQQ-89 towed-array sonar system, to provide an immediate increase in detection capability without the

need to modify or procure additional wet-end hardware. The minimum fleet requirement of eight SURTASS ships is funded through the FYDP.

The Fixed Distributed System (FDS) is operational and has demonstrated successfully the ability to detect, classify, and track quiet submarines. These results validate that acoustic ASW remains feasible against advanced-capability nuclear and diesel-electric submarines. New fiber-optic technologies, algorithms, and enhanced signal processing enable exploitation of weak signals in high background noise environments and provide timely and accurate detection and track data to tactical assets.

The Low-Frequency Active (LFA) system has detected submarines at long ranges. The first LFA ship, TAGOS 23, is under construction. In the interim, a leased ship, *Cory Chouest*, is being used to test and validate LFA technologies. Compact acoustic source technologies are also under development and will provide a 50 percent reduction in weight and power requirements. Successful maturing of these technologies will allow LFA-type arrays to be deployed from existing TAGOS 19-class vessels.

The Advanced Deployable System (ADS) is a theater-deliverable acoustic-surveillance system that provides continuous acoustic coverage over vast ocean areas for extended periods. This system can detect quiet nuclear submarines, diesel-electric submarines operating on battery, ships exiting or entering port, or minelaying operations. The importance of portability will intensify as our surveillance requirements increase because of a greater focus on the littorals and the growing popularity of diesel submarines, and the downsizing of our own force.

Ground Weapons Programs

Advanced Amphibious Assault Vehicle (AAAV).—The AAAV gives the Marine Corps a weapon system fully capable of implementing ship-to-objective maneuver (STOM). Currently in the demonstration and validation phase, the AAAV will allow rapid, high-speed transportation of Marine combat units as they emerge from amphibious assault ships located well beyond the visual horizon. It is designed for greater crew survivability and maneuverability than the current AAV-7A1, and will incorporate a nuclear-biological-chemical protective system. The AAAV is targeted for fielding during fiscal year 2006.

Assault Amphibious Vehicle (AAV) RAM/RS.—A portion [64 percent] of the AAV fleet will undergo a reliability, availability, and maintainability (RAM) upgrade, and a rebuild to standard (RS) retrofit, to ensure Marine AAV's remain maintainable until the arrival of the AAAV. The RAM/RS program will incorporate a Bradley suspension and engine, and a new transmission. The projected savings of RAM/RS compared to the current inspect and repair only as necessary [IROAN] program—is \$400 to \$500 million.

Lightweight 155 mm Towed Howitzer (LW155).—The LW155 155 mm towed howitzer will be a rugged, efficient weapon system. It will replace the aging M198 155 mm towed howitzer as the only artillery system in the Marine Corps inventory. The LW155 is designed for expeditionary operations requiring light, highly mobile artillery, and for transport by the MV-22 Osprey aircraft. The howitzer's lighter weight (9,000 pounds versus 16,000 pounds for the current towed howitzer, the M198) and automated breech, rammer, and digital fire control computer will provide the MAGTF commander greater operational flexibility, while increasing the responsiveness and efficiency of artillery units. The program is in the engineering and manufacturing development (EMD) phase of the DOD systems-acquisition process. Initial operational capability is planned for fiscal year 2002.

Medium Tactical Vehicle Replacement (MTVR).—The Marine Corps MTVR will provide the backbone of future Marine Corps wheeled combat support and combat service support. The MTVR will be a quantum improvement over existing trucks, incorporating an electronically controlled engine and transmission, central tire-inflation system, antilock brakes, and a 22-year corrosion control package. Payload capacity will increase from 5 tons to 7 tons off-road and to 15 tons on-road. The MTVR program is in the engineering and manufacturing development phase of the DOD systems-acquisition process. Initial operational capability is expected in fiscal year 2000.

Third Echelon Test Set (TETS) AN/USM-657.—The Marine Corps faces unprecedented challenges in maintaining the current inventory of aging electronic ground weapon systems while simultaneously fielding new sophisticated systems. The Marine Corps has adopted the TETS to satisfy this requirement. TETS is a diagnostic-testing and fault-isolation system for communication-electronic and ground-weapon systems. This portable test set can be mounted on the tailgate of a high-mobility, multipurpose wheeled vehicle (HMMWV) or housed within maintenance shelters. Contract for the TETS was awarded in fiscal year 1997 and fielding will begin in fiscal year 1999.

Javelin.—Javelin, a joint Marine Corps and Army program, is a soft-launch, medium-range, fire-and-forget anti-armor weapon system. Capable of being fired from enclosed structures, the Javelin offers greater protection for the gunner and greater lethality against armor targets at medium ranges than previous anti-armor weapons. The Javelin consists of a reusable command launcher unit, which can be employed as a stand-alone thermal sight, and a missile. Initial fielding is planned for fiscal year 1999.

Predator.—Predator, a short-range assault weapon (SRAW), is a Marine Corps anti-armor program with fielding scheduled to begin in fiscal year 2001. It will fulfill the Marine Corps' requirement for a lightweight, man-portable, disposable, short-range weapon. The missile has a soft-launch rocket motor for firing from enclosed spaces, and the flyover, shoot-down profile facilitates warhead penetration into the vulnerable top of the target.

Aviation Weapons Programs

F/A-18E/F Super Hornet.—The F/A-18 Hornet is the cornerstone of naval aviation strike warfare. The newest and most capable naval aircraft, the F/A-18E/F Super Hornet, combines the outstanding characteristics of earlier F/A-18 models with cutting edge technology resulting in an affordable aircraft with significantly improved performance and endurance. F/A-18E/F is designed to execute the missions and meet the threats through 2015, with greater range and payload flexibility, an ability to return to the carrier with more unexpended ordnance capability, room for avionics growth, and enhanced survivability features. It will increase the capability for naval aviation to conduct night strike warfare, close air support of ground forces, fighter escort, air interdiction, and fleet air defense. The Super Hornet is in the flight test phase of engineering and manufacturing development, and has amassed over 2,100 flight hours. Initial sea trials were completed in January 1997. Approval for the low-rate initial-production (LRIP) of 62 aircraft was received last year. Procurement of LRIP aircraft will begin the orderly transition from the Navy's F/A-18C and F-14A aircraft to this improved strike-fighter. The Super Hornet will comprise most of the carrier-based strike-fighter assets by 2008.

MV-22 Osprey.—The MV-22 Osprey is a tilt-rotor, vertical-take-off-and-landing aircraft designed to replace the Marine Corps' CH-46E and CH-53D helicopters. The Osprey has accrued more than 1,000 flight hours, and has entered the developmental and operational test phase. Its performance has been impressive, and its test envelope continues to expand. Increased reliability and maintainability were part of the MV-22 initial design process. All aspects of the MV-22 have been tested for human factors such as adequate access, reduction of MV-22 unique tools, and use of on board monitoring systems that determine when components need replacement. Its construction incorporates many features that enhance its combat survivability, including composite structural components that provide increased ballistic tolerance, triple redundant digital fly-by-wire flight controls, and a cabin overpressurization system that provides chemical and biological protection for crew and embarked troops. Aircraft deliveries are scheduled to begin in fiscal year 1999.

AV-8B Remanufacture.—The AV-8B remanufacturing program continues on track. Refurbished aircraft with better engines, COTS technology, and improved avionics have been joining the fleet since 1996. These aircraft will effectively conduct the close air support mission until the arrival of the Joint Strike Fighter. The Marine Corps now has three variants of the AV-8B Harrier in service: the day attack, night attack, and radar/night attack aircraft. The night attack Harrier improves on the original AV-8B design by incorporating an improved navigation system with a forward-looking infrared sensor, a moving map display, and night-vision-goggle compatibility. The radar/night attack Harrier (Harrier II+) incorporates these improvements and the AN/APG-65 multimedia radar. The fusion of night and radar capabilities makes the Harrier responsive to the Marine air-ground task force requirements for expeditionary, night-and-adverse-weather, offensive air support.

F-14 Update.—The F-14 Tomcat is now being configured as a potent precision-strike fighter. Incorporation of the low altitude navigation and targeting infrared for night (LANTIRN) system gives the Tomcat an accurate autonomous designation and targeting capability for delivery of laser-guided bombs. Beginning in 1997, all forward-deployed carrier air wings had LANTIRN capability. In addition to LANTIRN, two major flight-safety improvements for the Tomcat also are under way. The digital flight control system (DFCS) has demonstrated significant improvements in departure resistance/spin recovery and improved flying qualities during shipboard recovery. Installation of the DFCS will begin in June 1998. The TF30 engine breather-pressure modification consists of an engine sensor that detects an abnormal condition to allow the pilot time to take action to prevent engine failure. With these warfighting and safety improvements, the F-14 Tomcat will give battle group com-

manders a proven warfighting aircraft with added flexibility for attack missions until the F/A-18E/F enters the fleet.

EA-6B Prowler Block 89A Upgrade.—The EA-6B Prowler is the sole provider of airborne electronic warfare jamming support to the Department of the Navy, and recently was designated a national asset. The Block 89A upgrade program addresses structural and supportability problems associated with the aging aircraft fleet. Numerous avionics improvements for safety of flight and joint operability—including the ICAP-III program update—are included.

Navy Helicopter Master Plan.—The Navy's Helicopter Master Plan reduces the Navy's types of helicopters from eight to two, reducing manpower and logistics-support costs. The Navy is procuring a U.S. Army UH-60L Blackhawk derivative, the CH-60, to replace current logistics and combat helicopters. The Navy's current inventory of SH-60B/SH-60F/HH-60H helicopters will be remanufactured into a single multimission helicopter, the SH-60R.

AH-1W Super Cobra/UH-1N Huey.—A commonality upgrade titled the H-1 Upgrades Program (4BN/4BW) replaces the current two-bladed rotor system on the AH-1W and UH-1N aircraft with a four-bladed, all-composite rotor system, and also adds a performance-matched transmission, drive system, and upgraded landing gear. The 4BW also will incorporate a new, fully integrated cockpit and six weapons stations. The 4BN maximizes commonality and supportability with the 4BW and returns the required aircraft power margin, while providing adequate mission-payload and warfighting-capability growth potential. The upgrade program will reduce life-cycle costs, significantly improve operational capabilities, resolve existing safety deficiencies, and extend the service life of both aircraft.

CH-53D/E Sea Stallion.—The CH-53D Sea Stallion is used to transport personnel, equipment, and supplies during expeditionary operations ashore. Operational safety improvement programs, including the global positioning system, improved radios, and night-vision goggle heads-up display, will ensure that the aircraft remains capable until retirement. In addition to the funded operational-safety-improvement programs of the CH-53D, the CH-53E Super Stallion will be provided a service-life extension program that extends the Super Stallion's service life past 2025 and will include a forward-looking infrared system.

Joint Strike Fighter (JSF).—The joint strike fighter program will develop and field a tri-service family of next-generation strike aircraft, with an emphasis on affordability. The family-of-aircraft concept allows a high degree of commonality, while still satisfying unique service needs. For the Navy, the JSF will provide a multirole stealthy strike fighter, to complement the F/A-18E/F. For the Marine Corps, the JSF will replace both the AV-8B and the F/A-18A/C/D, completing the Marine Corps' neck-down strategy of an all short-take-off- and vertical-landing fixed-wing force. Using cost as an independent variable, a primary objective of the JSF program is the reduction of costs associated with development, production, and ownership.

In November 1996, designs from two contractors were selected to compete in the JSF concept demonstration phase. This phase features flying concept demonstrators (X-32 and X-35), concept-unique ground and flight demonstrations, and continued refinement of the contractor's preferred weapon systems concepts. Transition to engineering and manufacturing development begins in 2001. Significant savings are anticipated from the joint approach to development. The United Kingdom's participation as a collaborative partner in the concept demonstration phase provides additional savings. Denmark, Norway and the Netherlands are associate partners in the program. Participation by other allied countries is anticipated.

Air-to-Ground Weapon Programs.—The most significant joint air-to-ground weapon development programs are the joint standoff weapon (JSOW), joint direct attack munitions (JDAM), and standoff land attack missile expanded response (SLAM-ER). JSOW is a family of air-to-ground glide weapons, designed to attack targets from beyond enemy point defenses. JSOW is a Navy-led program and will be effective against many targets during day, night, and adverse weather conditions. It will replace a variety of weapons in the current inventory. JDAM is an Air Force-led program to develop an all-weather capability for general-purpose bombs through the use of strap-on global positioning system (GPS) guidance kits. SLAM-ER meets the Navy's requirement for a standoff outside area defense (SOAD) weapon. SLAM-ER is an adverse weather, precision-guided weapon that simplifies mission planning, increases penetration, and nearly doubles the range of the original SLAM. The SLAM-ER+ will add autonomous capability and automatic target acquisition (ATA) to the SLAM-ER. The Navy also is planning to increase the inventory of laser-guided bombs through the Skipper conversion program.

Area Air Defense Commander Capability (AADC).—The area air defense commander requires an advanced planning and execution capability that integrates

force planning and tactical operations functions. The Navy envisions the AADC embarked in an Aegis cruiser supported by a joint staff of 40 personnel or less. AADC systems are planned for installation on 12 Aegis cruisers, with 2 additional systems designated for training. A prototype system will be installed on an Aegis cruiser in fiscal year 1999 in conjunction with Navy area theater missile defense development. The cruiser conversion plan calls for an initial operational capability in fiscal year 2003, with full operational capability for 12 cruisers in fiscal year 2006.

Air-to-Air Weapon Programs.—The AIM-9X Sidewinder and the AIM-120 advanced medium range air-to-air missile (AMRAAM) continue to be the foremost joint air-to-air-weapon programs of the Navy and Marine Corps. The Navy-led AIM-9X program upgrades the current missile with an advanced guidance-control section, a highly maneuverable airframe, and signal processors that significantly upgrade its infrared counter-countermeasures capabilities. The Air Force-led preplanned product improvements to the currently deployed AIM-120 weapon include enhanced electronic counter-countermeasures and improved kinematics. The AIM-9X and AMRAAM missiles will serve Navy, Marine Corps, and Air Force aircraft well into the future.

Unmanned Aerial Vehicles (UAV's).—Naval forces are employing the Pioneer UAV system in support of a broad array of expeditionary operations, such as reconnaissance and intelligence support in Bosnia. Outrider is Pioneer's potential replacement as the naval tactical UAV. Outrider is in the advanced concept technical demonstration phase of development. A new tactical control system will enable broad UAV interoperability and connectivity to the naval command, control, computers, communications, and intelligence (C⁴I) architecture.

Advanced Tactical Airborne Reconnaissance System (ATARS).—ATARS is the only manned tactical-reconnaissance system for naval combat aircraft presently under development, and will greatly increase the timely dissemination of imagery-intelligence information to theater, operational, and tactical commanders. The system's digital data-link capability will allow all levels of command to receive time-sensitive imagery simultaneously, enabling accurate intelligence preparation of the battlefield and pre-strike planning and post-strike analysis. ATARS is a suite of sensors and data-link pods that will be installed in the F/A-18D and associated ground stations. When fully operational in fiscal year 1999, ATARS will be joint-data-link capable and will provide support to all services. It will provide high-resolution, near-real-time digital imagery, day and night, in all-weather conditions through infrared, electro-optical and synthetic-aperture radar sensors. The imagery will be digitally linked via the joint services imagery processing system (JSIPS) and tactical exploitation groups.

Information-Superiority Programs

Navy-Marine Corps C⁴ISR.—The Joint Vision C⁴I For The Warrior (C⁴IFTW) challenged the services to develop "a global C⁴I system that satisfies the total information requirements of warriors when they fight as a team with a common mission." For the Navy and Marine Corps, the challenge of C⁴IFTW became a key element in the development of our Naval vision for the future, known as COPERNICUS. This common vision enables the Navy and Marine Corps to adapt, evolve, and fully integrate their command and control, communications, computers, intelligence, surveillance and reconnaissance (C⁴ISR) capabilities to conduct joint naval expeditionary force operations in the 21st century.

COPERNICUS is the unifying vision to ensure C⁴ISR systems respond to the warfighter, are fielded quickly, capitalize on technological advances, and support warfighting concepts. COPERNICUS enables Navy C⁴ISR development and implementation, such as the Global Command and Control System (GCCS), Global Command Support System, Defense Information Systems Network, and the Marine Air-Ground Task Force C⁴I (MAGTF C⁴I).

The joint maritime communications system (JMCMS) and Information Technology 21 (IT-21) are two implementation strategies which will leverage commercial technologies to achieve the COPERNICUS vision. JMCMS will improve communication bandwidth utilization whereas IT-21 will install an integrated communications suite at shore sites and on ships at sea.

The following are programs being implemented under the JMCMS and/or IT-21 strategy;

- Automated Data Network System (ADNS) is a secure, interoperable, multi-media intelligent network management system for data transfer. The development of ADNS is based on commercial and government off-the-shelf hardware and software. ADNS is currently fielded on 25 surface ships and submarines and will be installed on all ships and submarines by the end of fiscal year 2003.

- Global Broadcast Service (GBS) is a revolutionary advancement in joint communications, providing high-speed one-way broadcast video and data service. GBS becomes operational in February 1998, with the launch of the UFO-8 satellite.
- Challenge Athena is a program to lease commercial communications satellites and facilities to provide wideband connectivity, including intelligence imagery, to ships at sea.
- Joint Maritime Command Information System (JMCIS) is the Navy's designated command-and-control (C²) system for the future global command-and-control system (GCCS). JMCIS follows an evolutionary acquisition process to meet emerging fleet requirements. This system supports C² and tactical intelligence warfighting requirements for afloat, ashore, and tactical/mobile units. JMCIS provides timely, accurate, and complete all-source C⁴ISR information management and develops a common operational picture for warfare mission assessment, planning, and execution. JMCIS incorporates the Marine air-ground task force (MAGTF) command, control, communication, computer, and intelligence (C⁴I) software. The next version of the system software will be defense information infrastructure common-operating-environment (DII COE) compliant and will finalize naval implementation of GCCS, known as GCCS-Maritime (GCCS-M). GCCS-M will avoid the year 2000 problem, greatly improve network centric warfare, and be integral to information technology for the 21st century.
- Navy Tactical Command Support System (NTCSS) is the afloat system that brings existing logistical support systems into a single communications database. This effort mirrors the strategy utilized by afloat tactical systems. NTCSS provides the afloat commander key maintenance, supply, medical, and administrative information through the shipboard non-tactical automated program (SNAP), the naval aviation logistics command management system (NALCOMIS), and the maintenance resource management system (MRMS). This NTCSS information will be used to complete the tactical picture for the commander. NTCSS systems are currently interoperable with worldwide logistics systems inventory control and stock points. Standard data elements exist through the use of standard military requisition format, national stock numbers, and other common Department of Defense data elements. The NTCSS initiative is vital to the rapid improvement of afloat logistics systems. By the end of 1997, 65 percent of the NTCSS shipboard installations will be complete, providing the fleet with a wide-area networked-based logistics system.
- COPERNICUS*.—As stated earlier, COPERNICUS is the vision of complete integration of C⁴ISR systems in support of the warfighter. It provides the technical infrastructure that enables the sensor-to-shooter process. This system links targeting information provided by the sensor directly to the shooter. Some programs key to supporting the COPERNICUS vision for seamless connectivity of an operational picture are provided below:
 - Global Command-And-Control System (GCCS) is the over-arching command-and-control system for the armed services. It is the single most important initiative in the joint C² arena today, forming the backbone of the C⁴I for the warrior concept. Since achieving initial operating capability, GCCS has expanded beyond its initial force deployment, planning, and execution capability with applications across all functional areas of command-and-control. In fiscal year 1998, existing GCCS functions will become defense information infrastructure (DII) common operating environment (COE) compliant. Future upgrades will include intelligence, meteorological and imagery information on a common operational picture (COP), as well as better crisis action tools.
 - Mobile Satellite Services (MSS) are leased commercial systems that allow mobile users access to specifically tailored and wider-band, low-earth-orbit satellite services.
 - AN/PSC-5 Enhanced Manpack UHF Terminal (EMUT) is a lightweight, demand-assigned multiple access (DAMA), portable, line-of-sight and tactical-satellite-communications terminal that will serve as a primary command-and-control single-channel radio for MAGTF's. Employed at battalion level and higher, this radio provides increased range and reliability. EMUT will be used to transmit intelligence traffic, to interface with SINGARS waveforms, and to transmit/receive command-and-control traffic. Initial operational capability will be in early fiscal year 1998.
 - Enhanced Position Location Report System (EPLRS) provides MAGTF C⁴I users a dedicated data communications network and also serves as the primary source for automated friendly position-location information (PLI) and navigation information. EPLRS is a computer-based, time-ordered, spread-spectrum radio system, operating in the Ultra-High Frequency (UHF) band. Integral error detection and correction, cryptographic security, and frequency hopping features pro-

vide resistance to electronic countermeasures (ECM). EPLRS data communications capability will be used by the tactical data network (TDN), tactical combat operations (TCO) system, advanced field artillery tactical data system (AFATDS), and the digital automated communications terminal (DACT) to improve data distribution below the regimental level. In addition to position location/reporting features, EPLRS provides the capability to transmit/receive data. EPLRS will be used for data transmission at the regimental level and below.

Cooperative Engagement Capability (CEC).—The increasingly complex threats in the air-defense arena make it necessary to link geographically dispersed sensors, of differing capabilities, with all potential firing platforms. CEC uses sensor netting to make this possible. With CEC, it appears to each shooter's combat system as if every asset in the data link is that unit's own sensor. Engagements using remotely provided track data are possible for the first time. In addition, the ability to develop composite tracks means that every participating unit has an identical, real-time picture of the battle space, including identification information. With the addition of the airborne element of CEC in the E-2C Hawkeye, the reach of CEC will be dramatically increased. It will greatly enhance our ability to conduct overland engagement of cruise missiles, as well. In August 1997, CEC successfully passed initial operational test and evaluation. During the all-service combat identification evaluation team (ASCIET) 97 exercise, CEC's contribution to the establishment of a single integrated air picture was showcased in the successful integration of *Cape St. George* (CG 71) and a shore-based Marine Corps TPS-59(V)3 radar. Further CEC demonstrations included a Marine Corps HMMWV-launched missile that received its initial target data from the cruiser's radar. Currently, Army and Air Force are each continuing studies aimed at determining potential application of CEC to their service-unique systems.

To take advantage of the benefits of CEC, the Marine Corps has developed a prototype CEC lab to evaluate the integration potential of CEC. The focus of the lab is to fuse real-time attributes of CEC with the battle management information afforded by such non-real-time systems as Link-11 or Link-16. The CEC lab takes advantage of commercial-off-the-shelf (COTS) equipment, Internet protocol, and capitalizes on commercial technology to distribute the air picture to the operator. Future demonstrations of the Marine Corps land-based CEC lab and node include the Atlantic Command's theater missile defense initiative (TMDI) exercise in the spring of 1998. The Marine Corps also will continue support for the Navy's operational evaluation of CEC.

Marine Corps Aviation C4I Improvements.—Quantum improvements continue in systems that support the aviation combat element of the MAGTF. Phase one's initial operational capability of the advanced tactical air command central (ATACC) occurred in fiscal year 1996, and is the integrating link between the aviation element command and control (C²) and the MAGTF's C². The ATACC provides planners and operators with the automated assistance needed to supervise, coordinate, and direct the execution and planning of all MAGTF tactical operations. Also operational this year is the improved direct air support central (IDASC) product improvement program (PIP) and the tactical air operations center (TAOC). The ATACC provides great enhancements to interoperability with the Navy's joint maritime command information system and the Air Force's contingency theater automated planning system.

Marine Corps Fire Support C4 Improvements.—The fire support command-and-control system (FSC²S) is an interim system for providing semi-automated tactical fire support and technical artillery fire-control for MAGTF operations. The follow-on advanced field artillery tactical data system (AFATDS), which will automate fire-support command-and-control, will commence fielding of 51 systems in fiscal year 1999. The approved acquisition objective (AAO) is 677 units through fiscal year 2002.

—The target location, designation, and hand-off system (TLDHS) is a man-portable tool for fire-support observers and controllers to locate targets with GPS accuracy, designate them with a coded laser as appropriate, and pass them to the appropriate fire support system for resolution. This is a key enabling capability that will maximize the effectiveness of supporting fires, accommodating laser-seeking precision-guided munitions. The TLDH will provide the interface with the AFATDS and with digital delivery systems on board aircraft, and will use existing and planned communications assets for message transmission and receipt. The TLDH is scheduled for initial fielding in late fiscal year 2000.

Information Warfare (IW)

The gathering and dissemination of information has emerged as perhaps the most rapidly evolving, technology-based area of all the Warfare disciplines. Its effective

implementation will be critical to securing the battle space that allows the other warfare commanders to perform their missions. In both platform-centric and network-centric warfare, IW remains a critical warfare element by itself, and a central supporting element to the other warfare commanders. The availability of advanced communication technologies in world markets increases the likelihood that they will be employed by potential adversaries in advanced automated command-and-control systems and as components of advanced weapons systems. The adversarial use of these technologies and capabilities provides a clear challenge that must be countered.

COPERNICUS enhances the ability of Naval personnel to successfully conduct information operations (IO) and employ information warfare (IW). In an age of dynamically evolving command-and-control technology, the Navy has found that fleet needs cannot always follow the extended, formal requirements and procurement process. In response, the Navy has leveraged the dynamic operational interface of the fleet information warfare center (FIWC) with the technical expertise provided by the Naval information warfare activity (NIWA) to develop advanced technology systems to meet rapidly emerging needs. FIWC and NIWA form a team uniquely able to recognize, define, build, and deploy equipment to meet rapidly evolving IW needs.

FIWC and NIWA also have been instrumental in expanding communications electronic attack capabilities within the Navy. Two initiatives include the advanced support pod (an airborne communications jamming pod) and the surface communications jamming capability (SCJC).

—FIWC's Naval Computer Incidence Response Team (NAVCIRT) serves as the Navy's single point of contact for reporting, identifying, assessing, and recovering from computer attacks and viruses. A dramatic increase in the number of computer intrusions, probes, viruses, and denial of service complaints were reported in 1997. To combat these attacks, the number of operational intrusion detection sensors under FIWC's analytical control were doubled. Similarly, FIWC conducted nearly 100 computer network vulnerability assessments, more than doubling the fiscal year 1996 total. A recent at-sea exercise included FIWC as an opposing force intent on disrupting information networks.

The Surface Cryptologic Systems program is modernizing shipboard information warfare to operate in the modern threat environment. Ships with Outboard, combat direction finding (Combat DF), and ship's signals exploitation equipment (SSEE) will provide that capability in the near term, and future ships will incorporate highly automated, open architecture, modular IW systems to maintain this dominance.

Information Warfare (IW) Education and Training.—Education and training are critical to IW awareness and the Navy is the lead service for formalizing IW training. IW education and training is conducted at the Naval Telecommunications Training Center, at the Fleet IW Center, and at the Naval Postgraduate School.

Navy/Marine Corps Intelligence Systems

Joint Deployable Intelligence Support System (JDISS).—JDISS provides common intelligence, communications, and office automation applications for U.S., NATO, and coalition operations. JDISS provides a responsive, secure information network between intelligence centers and operational commanders, including access to national databases.

Battle Group Passive Horizon Extension System (BGPHER) is a ship-based system for the remote operation of airborne signals intelligence collection systems and control of local receivers on board the host ship. It extends the signal collection range up to 700 miles depending upon the altitude of the aircraft. BGPHER completed its first operational deployment aboard *John F. Kennedy* in 1997, operating with Navy ES-3A aircraft and Air Force U-2's.

Common High Bandwidth Data Link (CHBDL).—A wideband data-link for the transfer of signal and imagery intelligence data from reconnaissance aircraft to shipboard processing systems is a reality. CHBDL is the Navy's implementation of DOD's joint common data link (CDL) standard. It will initially be used with the battle group passive horizon extension system (BGPHER) for tactical SIGINT and the joint service imagery processing system-navy (JSIP-N) for tactical imagery. This point-to-point duplex link gives real-time control of airborne sensors with direct downlink of collected data to afloat commanders.

CHBDL completed a successful first deployment with the *John F. Kennedy* (CV 67) battle group in 1997. CHBDL is programmed for installation on board all aircraft carriers, large-deck amphibious ships, and fleet flagships.

Marine Corps Intelligence Programs.—The Marine Corps' research, development, and acquisition of tactical intelligence systems continue to improve intelligence support to MAGTF commanders. Upgrades to tactical intelligence capabilities are being

addressed through programs within the joint military intelligence program (JMIP) and tactical intelligence and related activities (TIARA).

Improvements to imagery intelligence capabilities are being accomplished through the joint services imagery processing system (JSIPS) national-input segment, which provides deployed Marine forces with national imagery support. Beginning in fiscal year 1998, each Marine expeditionary force will receive a tactical exploitation group to receive, process, and disseminate imagery from F/A-18D ATARS-equipped aircraft, and other theater and national collectors. Marine Corps signals intelligence (SIGINT) improvements include the radio reconnaissance equipment program (SIGINT suite-1), the technical control and analysis center (TCAC), the team portable communication intelligence system (TPCS), and the testing of improvements to the mobile electronic warfare support system (MEWSS). Additionally, the Marine Corps participates in the ongoing, congressionally-mandated tactical exploitation of national capabilities (TENCAP) program, designed to exploit national overhead reconnaissance systems and explore emerging technologies. Other program initiatives to enhance Marine Corps intelligence capabilities include:

- Intelligence Analysis System (IAS) provides the backbone for tactical intelligence fusion in support of the Marine expeditionary force (MEF) command element down to the squadron. The MEF IAS configuration is a mobile system with multiple analyst workstations in a client-server LAN. Lower echelon configurations can range from individual to multiple workstations. IAS is capable of communication with other intelligence systems at the national, theater, and tactical levels.
- Manpack Secondary Imagery Dissemination System (SIDS) enables the MAGTF commander to collect, store, display, manipulate, and transmit digital reconnaissance imagery in near-real-time. SIDS consists of digital cameras and palmtop processors, which allow reconnaissance units to take pictures and immediately transmit them back to a base station for exploitation and dissemination. SIDS is programmed to be fully operational by fiscal year 1998.
- Counterintelligence and Human Intelligence Equipment Program (CIHEP) provides equipment to conduct controlled, surreptitious, and tactical intelligence gathering operations that directly support antiterrorism and force protection. CIHEP integrates audio, video, photo, communications, and automated data processing to report and disseminate counterintelligence information.

Non-Lethal Weapons

The DOD-wide nonlethal weapons (NLW) program, directed by the Commandant of the Marine Corps as executive agent, encompasses a broad range of nonlethal technologies. These systems, which include 14 multiservice projects currently receiving joint research-and-development funds, provide the field commander more options for response to contingencies, especially those dealing with military operations other than war. Although Marine expeditionary units currently have NLW-capability sets and deployed U.S. Army units have been trained in some basic (40 mm and 12 gauge) NLW munitions, these items provide only a modest nonlethal capability. They do, however, provide the ground commander an ability to disperse or discourage crowds and seize or temporarily incapacitate individuals. Ongoing NLW projects range from stingball munitions to acoustics and other directed-energy systems. The fielding of these systems is planned over the next 7–10 years, with the more basic munitions expected to be in the inventory by the year 2000.

CONCLUSION: CHARTING A COURSE FOR FUTURE SUCCESS

In the “...From the Sea” revolution, the Department of the Navy has begun to lay out its transformation strategy and to chart a course into the 21st century. Our challenge is clear: to be the best Navy-Marine Corps team in the world today, tomorrow, and in the decades to come. We are moving aggressively to meet that challenge on all fronts.

We recognize that forward, balanced, flexible naval forces will be a key part of implementing our national security strategy of engagement, and that they will play a unique role in shaping a stable and prosperous future. Accordingly, we must sustain our current operational primacy in a rapidly evolving strategic landscape. We have already laid the foundation for our future primacy, but know that we must go much further. We must explore still more ways of serving our nation's changing needs and we must expand the revolution in naval affairs that has already begun.

We recognize, too, that new concepts, in themselves, are not enough. We will transform our forces with the technologies of a new age, and make rapid technological change our ally. That will mean streamlining—revolutionizing—the way we do business. We will balance carefully our investments in people, readiness, tech-

nology, force structure, and modernization, to ensure that our people have the tools they need, when they need them.

Finally, we recognize that our success ultimately depends on dedicated, innovative personnel. Our naval forces are blessed with the world's finest Sailors and Marines. They are our "secret weapon." We will nurture that core intellectual capital of our revolution and encourage the new thinking that will keep our Navy and Marine Corps team great.

The future of our Naval Service is bright. We will meet the challenges of a new world, and we will thrive on them. We will ensure that this nation has a decisive impact from the sea, today and tomorrow—anytime and anywhere.

OPENING REMARKS OF ADMIRAL JOHNSON

Senator STEVENS. Admiral Johnson.

Admiral JOHNSON. Thank you, Mr. Chairman, good morning, Senator Inouye and members of the committee. I will be very brief.

I would start just by saying that I share the Secretary's enthusiasm for the Navy and Marine Corps team, I am intensely proud of our great Navy. I think we have had a very good year, we intend to have another one. The trend is in the right direction.

We are on station, where we belong, ready to execute the full spectrum of tasking that may be laid upon us. I would characterize it as an even strain out forward, and I talk to them almost daily, and they are very much ready in every respect.

As to the budget, I would characterize it as a good balanced budget. It does reflect the work we did in the "Quadrennial Defense Review," it does reshape the Navy to what I would call a leaner but more capable force, which allows us to then reinvest and focus our investments, if you will, on operation and maintenance, manpower, and procurement accounts, so that we will not have to, hopefully, come back next year for the kind of reprogramming we are just discussing now.

I believe it to be a very good budget, and like the Secretary and the Commandant, I am very, very grateful personally and professionally for the support that we get from this body, and I am ready for your questions, sir.

Senator STEVENS. General Krulak.

OPENING REMARKS OF GENERAL KRULAK

General KRULAK. Yes, sir; you have my testimony, so I will be very brief.

First, like Admiral Johnson and the Secretary, I want to thank you very much for what this committee has done for my individual marines. There are a lot of big-ticket items that are important to me, but nothing is more important than that individual marine, and a lot of what you have done has made his life a lot better.

There are 24,497 of those marines forward deployed right now, as we speak, as we sit here, almost 24,500, away from their families for 6 months to 1 year, and I just wanted you to know that they are doing a hell of a job.

Third, sir, I hope that you are wearing that nice dark green uniform for me—as a marine. Just kidding, sir. [Laughter.]

I thought that you were wearing that for me, sir. I am ready for your questions.

[The statement follows:]

PREPARED STATEMENT OF GEN. CHARLES C. KRULAK

There is a direct and undeniable link between our strong and virile economy and the stability of the world in which we trade. The Quadrennial Defense Review, mandated by Congress, validated the unique effectiveness of naval forces in contributing to crisis prevention and crisis resolution—to promoting that stable world. The National Defense Panel provided an independent assessment. Once again naval forces, with our ability to stand off a potential hotspot for indefinite periods of time—with no issues of sovereignty, no issues of basing rights and with no host nation support agreements required of any kind—was validated as one of our nation's most useful tools for maintaining world stability. Our "Presence"—the presence of United States Marines forward deployed at critical points around the globe contributes significantly to this nation's ability to ensure world stability.

But, the old adage, "You have to spend money to make money," is true. And you have done just that. The money you have provided the Marine Corps has been well spent. We have endeavored to be frugal. We fully understand and appreciate Congress' efforts to balance our federal budget and provide for the financial security of our nation. But even in the face of that daunting task, you have seen the value of equipping and funding your Marines. And I want to thank you for that. I want to thank you on behalf of that vigilant Marine standing his post in the rain on the other side of the world. Due to your foresight, he's warm and dry in his new Gortex parka. I want to thank you on behalf of the Marine infantryman, who is today, walking in a pair of comfortable, quality boots—boots built to support him in "every clime and place." You cannot believe what a difference that makes. I want to thank you for the ammunition, the spare parts, and operating moneys which translate into training and readiness. Readiness is paramount.

I want you to know that we not only appreciate what you have done for us over the last several years, but that we have endeavored to enhance our capabilities utilizing that which you have provided. We feel strongly that we have succeeded in that undertaking. As an example, the funds provided for the Warfighting Laboratory have been put to good use in our Sea Dragon experiments. The first Advanced Warfighting Experiment (AWE), Hunter Warrior is complete. We learned much. We anticipate learning even more from the next AWE, Urban Warrior which is now underway with an anticipated conclusion in the spring of 1999. In Urban Warrior we are investigating new technologies, concepts and organizations for operations in the burgeoning urban littorals—areas which the QDR and the NDP both agree will be important in the decades ahead. But we are not just testing new ideas—not just gathering data. As a result of the Lab's conclusions, we are actually fielding new capabilities. I've spoken before of the Chemical Biological Incidence Response Force, now a unique part of the nation's defense. But, there is much more. We have begun to field non-lethal weapons sets with our Marine Expeditionary Units world-wide. These sets don't, in any way, dilute the lethality of the Marine Air-Ground Task Force but rather they give the commander a broader selection of capabilities. And, this summer, our MEU's will deploy with the Dragon Drone, an Unmanned Aerial Vehicle. In a short period of time—certainly very short when compared to traditional research, development and acquisition procedures—we have taken an off the shelf piece of equipment, the Dragon Drone, enhanced its performance, conducted experimentation, and then fielded a capability that greatly increases the battalion commander's ability to fight. This single UAV provides over-the-horizon day or night reconnaissance, surveillance, target acquisition, and even delivers non-lethal weapons. Given its breadth of capabilities, this is an inexpensive system with a price tag of between \$45,000 and \$90,000, depending on the configuration.

All these things and much, much more are discussed in our booklet "United States Marine Corps Concepts and Issues 1998." I commend it as an excellent resource which provides information on a range of Marine Corps topics from, procurement programs, to personnel programs such as recruiting and our transformation process, to our operational concept, to the activities of the Marine Corps Warfighting Laboratory and its series of Advanced Warfighting Experiments.

When I first came before Congress, I was asked, if I could have anything for the Marine Corps, what would it be? I told you, I'd like to retire some of our Korean War vintage personal equipment and outfit your Marines with modern gear that would make them more effective in the field. You helped with that and so much more. Again—thank you. I further thank you for recognizing the value of the V-22 tiltrotor aircraft. This aircraft exponentially increases the effectiveness of our forward deployed expeditionary forces. The QDR recognized this, and today, because of the foresight of the Congress, the administration, and the Department of Defense (DOD), we will more rapidly assimilate this unique capability, having moved 11 planes from the out-years into the current Future Years Defense Program (FYDP).

This action had two very advantageous effects. First, it decreased the unit cost, and saved the American people tens of millions of dollars. Second, and more importantly, there is no new capability being procured by the DOD today which yields such a significant—such a revolutionary—difference, in our ability to fight the nation's battles, as the V-22 Osprey. And I don't just mean a tactical difference, although the scope of tactical applications is truly staggering. The procurement of an operational V-22 capability has enormous strategic implications. Because it flies at speeds only achievable with a fixed wing aircraft and because it can refuel in flight, the Osprey can self deploy. We can pick up combat loaded Marines in CONUS and move them to point of crisis—quite literally anywhere in the world. And, we don't need an airstrip when we get there. It flies like an airplane, takes off, hovers, and lands like a helicopter and has a greater payload and greater range than mid-sized helicopters. When we field operational squadrons of V-22's, the warfighting CINC's and the NCA will have a host of options never before available—options and capabilities found in no other military in the world.

America depends on and uses her Corps of Marines. This has never been truer than it is today. During the cold war, Marines were called upon to respond to crisis about once every fifteen weeks. Since the cold war, that commitment has tripled to once in every five weeks. Since my testimony just last year, the people have sent us to do their bidding in the world, on ten separate occasions. We were there. We were ready. And to ensure we continue to be ready, we maintain an average of 23,464 Marines forward deployed—ready to respond when the nation says, "Send in the Marines!" We do two things for this nation, we make Marines and we win battles. Congress, who handles the purse strings of the nation, has done much to equip us to win those battles. I want to tell you the people's money has been well spent. I ask you for your continued support.

CARRIER ROTATION IN THE GULF

Senator STEVENS. Mr. Secretary, we did take part of the committee to the South Pole, and on the way we happened to see Adm. Bob Natter, who was moving the Seventh Fleet, the *Independence* battle group, around to the Persian Gulf. We had a very interesting visit with him and some of his people, a very interesting coincidence. You mentioned that deployment.

Can you tell the committee a little bit more about what the rotation policy will be for the Navy, and your personnel now, in terms of that deployment. It looks like an early and definite deployment.

Secretary DALTON. Well, we plan to have the two carrier battle groups and the amphibious-ready group in the gulf for the foreseeable future. The *Independence* responded to the call, and I have a personal good feeling for that ship.

I spent my youngster cruise on that when I was a midshipman, and it is the oldest ship in our fleet today, and continues to do an outstanding job, but we anticipate being there in the force that we are there today for the foreseeable future.

In terms of the rotation, the U.S.S. *Carl Vinson* is steaming toward the gulf today and will be replacing or relieving the U.S.S. *George Washington*. Excuse me. The *Stennis*. Excuse me. The U.S.S. *John Stennis* will be relieving the *George Washington*, and we are staying on our 6-month deployment schedules.

We learned a valuable lesson in the seventies when we reached a hollow force by keeping our people deployed for long periods of time, 8, 9, 10, sometimes 11-month deployments.

Our people come into the Navy and Marine Corps to go to sea, they expect to deploy, but we have learned through experience that 6 months is the right period of time, and this 6-month rotation cycle is one that we adhere to. For it to be broken, it actually has to be approved by the Chief of Naval Operations, and he has only done that rarely in the last few years.

So by staying on that rotation, having these ships relieved by their shipmates and counterparts coming into the gulf is the right thing to do.

Obviously, keeping that number of carriers and that amphibious ready group in the gulf for a long period of time does take away from their capability to be someplace else, so that is a strain, and we are also steaming these ships longer than their steaming days per quarter, or higher, on the deployment in the gulf than they normally would be, because they have a big job to do.

So that is the plan, and it is one that we can certainly carry out for an interim period of time. If we had to do it long term, it would put a strain on us and not be able to cover other commitments in other parts of the world.

Senator STEVENS. Thank you very much. Gentlemen, I hope the committee will not run the clock, but I ask each of you to limit your questions somewhere around 5 to 7 minutes.

NEW ATTACK SUBMARINE

Senator Inouye.

Senator INOUE. Thank you. Mr. Secretary, last year the Congress approved legislation for a contractor teaming arrangement and the procurement of four new attack submarines over the coming years. Can you give this committee a status report on the new attack submarine program?

Secretary DALTON. Yes, sir, Senator. The Congress directed that we budget four submarines in the fiscal year defense plan [FYDP], and at this low production rate the most economical approach to build submarines at two yards was to look for efficiencies in the major portions of the production. This was an innovative, unique approach to having these two yards team, and we appreciate the support of this committee in allowing us to do that.

We think it will save some \$600 million over the FYDP by having these two yards work together in this way, and I am very pleased with the progress to date. So far, of the 12,000 drawings, some 5,000 are already complete, the contract proposal was received from Electric Boat and Newport News in mid-December. We expect to award the contract for the first submarine in the second quarter, by the end of June. The project is on schedule for mockup development and we will actually cut steel on production of a prototype of the bulkhead, in April. So the program is on schedule and it is doing well. It is one that was a real innovation on behalf of the Navy Department but I am convinced that it is in the best interest in the Department of the Navy and the taxpayer.

Senator INOUE. Admiral Johnson, on November 21 of last year, your Vice Chief of Naval Operations announced that the Pacific missile range facility [PMRF] is the best choice to conduct anti-ballistic missile defense programs. Can you tell us why PMRF was designated the best choice?

Admiral JOHNSON. Senator Inouye, there are several reasons that brought the Vice Chief to that statement, and I will just state a couple of them here. First, and really foremost, in my mind, is the open, unencumbered space attendant to the Pacific missile range facility.

A secondary and also very important reason for us is that the first two ships that will be equipped with the area theater ballistic missile defense capability are home ported in Pearl Harbor. It is a logical fit for them to execute the test program that will commence next year in the local area, for quality of life for the crew, for what we have learned in the Mountain Top experiments that we did previous, et cetera, so it is a very strong allegiance we have with the PMRF.

RECRUITING AND RETENTION

Senator INOUE. General Krulak, in your prepared statement you note the high rate of crisis to which the marines are responding. In fact, you say that it used to be once every 15 weeks, now it is triple, once every 5 weeks.

Other services somehow connect high rates of deployment to their problems of retention and recruiting, and yet I note from your report that you do not seem to be suffering from the same problem. What is the reason?

General KRULAK. I think it is a couple of reasons, sir. One is the ethos of the Marine Corps, they come in, as the Secretary says, to deploy. They are the type of young men and women of character who literally say we are going to come here, we know we are going to be worked very hard, that is why we have come into the service, and so that is their basic philosophy coming in.

Second, I think they get a heck of a challenge, they are doing something very important for the Nation, and there is not a young man and woman around who does not get fired up about the opportunity to do something meaningful for their country.

Third, I think they get good leadership, to be very honest, and I do not mean from the general level, I mean from the corporal, and the sergeant, and the gunnery sergeant level, maybe the captains and the lieutenants, but at the base level they are really being led by tremendously fine men and women.

Fourth, that is reflected in not only our accessions, recruiting, but more importantly, in retention. By the end of this first quarter, we had utilized 88 percent of all of our available boat spaces to reenlist people.

At the end of 3 months we only had 12 percent of the corps left to go, we literally had to slow retention in order to allow those people who were coming up in the following months to get an opportunity to reenlist in the corps, all of it, because I think they are getting the type of challenge that they sought when they came in, in the beginning.

Senator INOUE. Thank you very much. Mr. Secretary, your commander of the Pacific Fleet, Admiral Clemins, has made it a high priority to have new housing and other facilities on Ford Island, and obviously, we do not have that kind of money to budget this type of activity, so a suggestion was made that the Navy enter into agreements with the private sector to offset the costs of this proposal. Can you tell me what the status is?

Secretary DALTON. Senator, as you point out, Admiral Clemins, CINCPACFLEET, has submitted a conceptual plan for the development of Ford Island. It is his judgment that this will provide a focal point for Pearl Harbor, a quality residential community for

the Navy Department, and also establish a place for Navy history and culture. He has also proposed draft legislation which would give the Navy Department the broad authority to lease or convey the property to private entities to construct and operate military housing and other facilities. We are reviewing that proposal within the Navy Department today, and I look forward to getting the briefing and seeing if we can move forward with it as well.

Senator INOUE. Are you optimistic?

Secretary DALTON. Yes, sir; from what I know about it, it is a good proposal, but I do not have the details yet. I know that Admiral Clemins feels very positive about it, and he and his staff have done a great deal of work on it. I look forward to seeing it personally.

Senator INOUE. Thank you.

Senator STEVENS. Senator Bond.

F/A-18E/F

Senator BOND. Thank you very much, Mr. Chairman. Mr. Secretary and Admiral Johnson, we have heard that the E/F, the Navy's F/A-18E/F program is your No. 1 priority, can you also assure us that long-lead funding for the F-18 will be protected from reprogramming raids, to fill other shortfalls, so that a multiyear procurement may be securely negotiated in the near term?

Secretary DALTON. Senator, as I said in my opening statement, this is our No. 1 priority, this program is doing extremely well. It is on time, on budget, under weight. We are in the test phase of the program, and there are always issues that we deal with in the test phase, but this program is doing extremely well. We do want to, indeed, protect this program, and go forward with the multiyear.

The CNO has been actively engaged, actually been down to fly the Super Hornet, as Congressman Cunningham has recently. We always welcome that and would welcome any of you that would like to go——

Senator STEVENS. They both came back safely——

Secretary DALTON. Yes, sir, they did.

Senator STEVENS [continuing]. The plane and the Congressman.

Secretary DALTON. Absolutely.

Senator STEVENS. Good.

Secretary DALTON. Let me ask the CNO to expand on that, please.

Admiral JOHNSON. Only to say, Senator Bond, that personally I want to build a fence around the E/F so that nothing encumbers our climb to steady-state procurement, so that we can lock in the multiyear, that is really important to us, that is why the 30-year plan this year is important.

We have to get up on that ramp stabilized, so we can get those airplanes, for the best dollar value, out to the fleet, ASAP.

Senator BOND. Thank you very much, Admiral, and Admiral, addressing the Navy standoff, SLAM-ER, does the Navy have a unique requirement for a man in the loop in your standoff air-to-surface weapon, and could you explain what parameter is met by including a man in the loop, for the benefit of the——

Admiral JOHNSON. Yes, sir; I think the best way to say it simply is that the reason the Navy is so enthusiastic about SLAM-ER is because it does satisfy the man-in-the-loop requirement, which gives us the capability to reprogram that missile. Relocatable target flexibility, that is really what it is all about.

By the way, we have had four in a row, very successful, not trivial profile test shots with the SLAM-ER, so we are very excited about that missile.

Senator BOND. But the man in the loop, as I understand it, is because there is a pilot——

Admiral JOHNSON. Indeed.

Senator BOND [continuing]. Who is much close to the——

Admiral JOHNSON. Exactly.

Senator BOND [continuing]. Missile and the target.

Admiral JOHNSON. It gives you the combat tactical flexibility to essentially deal with relocatable targets, real-time.

Senator BOND. That is the point I want to make. Thank you.

Admiral JOHNSON. Yes, sir.

Senator BOND. For a moving target you can make that——

Admiral JOHNSON. Indeed.

Senator BOND [continuing]. Reprogramming. Final question. Mr. Secretary, I know your budgeting a funding plan which takes advantage of a proposed multiyear procurement for the T-45. Would you please explain that for the committee?

Secretary DALTON. Yes, sir, we are, and we are pleased with the progress of the T-45. We had a very nice roll out of that down at Meridian, MS, last year. The T-45 is doing well, and we are moving forward with the multiyear.

Senator BOND. What is your time line for the execution once authorization is granted?

Secretary DALTON. Let me answer that for the record, if I could, please, Senator.

Senator BOND. All right. Thank you very much, Mr. Chairman. [The information follows:]

The timeline for the execution of the T-45 Multi-Year Procurement is 15 aircraft per year for fiscal year 1999-2002, and 4 for fiscal year 2003. This 64 aircraft buy (at a savings of \$47.4 million over the current non-MYP plan) completes the T-45 buy of 187 aircraft required under current planning factors. The final T-45C aircraft bought in fiscal year 2003 will be delivered in fiscal year 2005. Once authorization for fiscal year 1999 funds is received, the MYP contract can be awarded shortly thereafter. Current plans are for a December/January award.

300 SHIP NAVY

Senator STEVENS. Senator Cochran.

Senator COCHRAN. Thank you, Mr. Chairman. Mr. Chairman, I join you in welcoming this distinguished panel of witnesses before our committee today.

In looking at the budget request for the Navy and the Marine Corps, there are obviously very strong efforts to meet the needs that we have for a mobile force that can project power around the globe right now, that force is stretched pretty thin, and I think that is very clear from not only the statements that have been submitted to the committee, but also the budget requests, particularly as it relates to helping meet some of the needs for having equipment

and ships that are modern and capable to meet this ever-growing challenge that we face around the world.

In that connection, I know that there has been a goal for some time of 300 ships for the Navy. That is the operational requirement that has been viewed as the Navy's goal, but you look at the money that is in the budget for ship building and it does not really keep pace with the need for new ships coming into the fleet to maintain a 300-ship Navy. I think the increased rate of construction that is projected in this budget is something like 5 ships to 6 ships per year, you really need to build about 10 ships each year over the next several years to get us on the track to meet that goal.

Have we abandoned the goal of a 300-ship Navy, or are we getting ourselves in trouble in the out-years by not having more money devoted to ship building?

Admiral JOHNSON. Senator Cochran, no, we have not abandoned that. We, indeed, plan to be at 300-plus ships well into our future. It does not make sense to build ships before we need them.

We, indeed, were building up to a 600-ship Navy during the 1980's, so we have a relatively young fleet. It is important that we build ships when we need them, but let me emphasize the point that early in the 21st century we are going to need to build more ships.

This DD-21, the surface craft of the 21st century that I referred to in my opening statement, is a ship that we are going to be building more of, and that ship is going to have fewer sailors aboard, less than 100 compared to the over 300 that we have aboard ships that are of a similar type ship that we have sailing in the Navy today.

The life cycle cost savings from that is some 70 percent. It is really significant. We think that by taking that approach we will be able to build more of those ships, and, indeed, keep our Navy at the size that we need to be in order to meet the commitments around the world.

We no longer need the 600-ship Navy that we once thought, because the ships that we are building today are so much more capable and can do so much more with even fewer sailors than those that they are replacing.

LHD'S/LHA'S

Senator COCHRAN. We noticed also that the ship groups that you have deployed in the Persian Gulf area, the general area, include an LHD Marine Corps battle group, along with two carrier groups. It illustrates the importance, I think, of the Marine Corps participation in that exercise, but also similar challenges that we have had in the past.

One question that I raised the other day in a meeting with Admiral Johnson was whether or not you are planning to ask for long lead funds for a new LHD.

It seems to me that at one point we were talking about a 12-ship LHD fleet, we are substantially below that, and not going to be able to reach that unless we do get some funds in the budget and start preparing for the construction of another LHD. I would like to get the Secretary's reaction, and then both Admiral Johnson's and General Krulak's response to what that need might be.

Secretary DALTON. Senator Cochran, we are committed to the 12 amphibious ready groups for our Navy Department. We are studying the option of whether to procure another LHD, or to do a SLEP, a Service Life Extension Program plan for the LHA's. We are looking at that option, and also considering the option of perhaps even accelerating the LHX, the next generation. However, we have not made a decision with respect to that, we are addressing it in our POM-00, which will be coming near term, and evaluating each of those options. I think options is the key word with respect to that, but let me ask the Chief of Naval Operations [CNO] and the Commandant to express themselves.

Senator COCHRAN. Well, let me just follow up with this additional question.

Secretary DALTON. Yes, sir.

Senator COCHRAN. What is the preferred way—to build a new LHD or to repair the LHA's?

Secretary DALTON. There are pros and cons to each way, in terms of considering costs, production, and also the ability to insert new technology. Those are the things that we are considering as we look at each of those options.

Senator COCHRAN. Admiral Johnson.

Admiral JOHNSON. Just a couple things to add, Senator Cochran. One is, and I think it is very important for the record that I mention the "Quadrennial Defense Review" on the front end in my remarks. The "Quadrennial Defense Review" validated what Chuck Krulak and Jay Johnson would say is something that is fundamental to the future of the Navy and Marine Corps team, and that is 12 carrier battle groups and 12 amphibious ready groups, so as the Secretary said, 12 is the right number. How we shape the amphibious ready group for the 21st century is very important to us, obviously.

We are looking at the options. For me, in order to provide for the Commandant's marines, I need the best, most combat-capable platform I can get that will allow me to keep ahead of the technology curve, and however that translates into these options, that is what we are going to go for, but we are very excited about the future prospects for the 21st century.

Senator COCHRAN. I could not agree more. Twelve big deck amphibians is key, not just for the Marine Corps, but for the Nation.

We have talked a little bit about where they are now, and we say there is only one in the Persian Gulf. The reality is, it just got there, relieved one that is now in the Gulf of Aden, there is one that is coming through into the Mediterranean, as we speak, there is one in Stonewater Bay, Australia, as we speak, so we have four amphib ready groups right now operating, four deployed, for the Nation.

The capability issue is key. You will want to have the most capable ship, you do not want to get something that is not going to take you into the 21st century.

Senator COCHRAN. Thank you very much. Thanks, Mr. Chairman.

Senator STEVENS. Senator Dorgan.

CAPABILITY TO PERFORM MISSIONS

Senator DORGAN. Mr. Chairman, I thank the witnesses, I thank Secretary Dalton and the General and the Admiral for being here. The discussion about appropriations is normally a discussion about unmet needs, which brings our attention to capability.

I read, and see, and hear from time to time people describing the Defense Department and the military branches as not capable to perform their missions, substantially weaker than at the height of the cold war, and so on and so forth.

So I wonder if you could just give us the description of capability at this point. Are you concerned about your capability, are you fully capable of performing all the missions? And, again, I ask that question, understanding that the discussion about appropriations is always about unmet needs.

General KRULAK. That is a very good question, sir, because you have come to the real hub, because it does have to do with money, also. It's the question of capability versus a system, or a platform, or numbers of people, and too often we get wrapped around the latter and not around the former, which is a capability.

In the Marine Corps we are capable of executing that which we have signed up to execute. We have never been a two MRC force, we have always just been a one. We are capable of doing that.

Our problem is simply what's going on behind the scenes, as we come back, or as Jay will tell you, as he comes back. The ability to get that carrier battle group or the amphibious ready group back up on the step, ready to go out when the whistle blows, is taking longer, and taking more money because of the systems. Now you are on this end of it—because the systems are aging, and the cost of maintenance and repair is increasing. The capabilities there, sir, it is what backs that capability up as you prepare for the next wave to go out.

Senator DORGAN. That relates to the kind of question Senator Cochran asked about the replacement of ships, and so on—

General KRULAK. That's correct.

Secretary DALTON. Yes, sir. Absolutely.

Admiral JOHNSON. I would only add, Senator Dorgan, that the committee knows well that we are a rotational force, and when you cast it in the terms of capability, I would tell you, as Chuck did for the Marines, that the Navy forces that are out forward are absolutely capable of executing the full spectrum of their mission tasking.

The concern, the unmet need discussion, really, in my view, belongs on the nondeployed side of our lives, and that is where our focus of effort is being put right now.

We are a tiered readiness force. We always have been by design. We are fully combat ready when we deploy, when we come home we step off the readiness ladder, if you will, and then work our way back up over the period called the interdeployment training cycle.

What has happened to us right now is that if you describe that interdeployment training cycle as a bathtub, I would use the term that the bathtub has gotten deeper. The climb out of the bathtub to go back on the deployment step comes later in the turnaround, and it is a steeper climb out.

That is where we are focusing our money, that is where we are focusing our priorities, so that we can get ourselves back to what I would consider a normal turnaround.

THEATERWIDE BALLISTIC MISSILE DEFENSE

Senator DORGAN. I have a couple of additional questions. Secretary Dalton, you and I talked yesterday, and I asked you about the theaterwide ballistic missile defense system that the Navy is developing.

Can you describe for us generally the capability of that system? I had read that you are accelerating that program. What are the consequences of that?

Secretary DALTON. Senator Dorgan, our Navy theater ballistic defense program is on track, we feel very good about the progress that we have made.

In the area defense program, the contracts are let and designs and reviews are complete. The missiles are being built, the computer programs are in test. I am confident that we will achieve our initial operational capability in 2001, as scheduled.

We are also very positive about the Navy theaterwide, and the progress that we have made there. We have reviewed each capability and how well it is doing. Indeed, it is part of our forward deployed sea base theater ballistic missile [TBM] capability.

I think the Navy Department has, indeed, stepped forward, and of all the services, we feel very positive about the contribution that we are making in this regard. I think that it's going to be very important to our future. Let me ask the CNO to expand on those remarks.

Admiral JOHNSON. Only to add, sir, that within the Navy budget what we have done with the program you have before you is we are preparing the force, if you will, preparing the fleet to accept theater ballistic missile defense capability.

We have put over \$1.2 billion into the various programs that will allow us to do cruiser conversions, that will allow us to forward fit into the DDG-51's, the CEC, and area theater ballistic missile capability. We have what I would consider a very robust program, because we think this is right, not only for the Navy, but for the country.

Senator DORGAN. That potentially puts a seal over a carrier group.

Admiral JOHNSON. Indeed, sir. The area, in terms of envelopes, let us just say the area is designed to go forward with the battle groups and provide protection for our forces, for the Marines, for the Army, for the allies, whoever needs them in the execution of a mission, in the littorals.

The theater systems have a much broader reach, and they are, by orders of magnitude, larger in their capacity.

Senator DORGAN. Just one brief question. I have had some inquiries from North Dakota, General Krulak, about a marine reserve plan. Are you considering an operational unit of marine reserve in North Dakota?

General KRULAK. Yes, sir, we are. We should be nearing a decision. The time line I have been given is about 30 days to the decision point.

Senator DORGAN. Mr. Chairman, thank you again. I think the information provided this morning is very useful, and I appreciate your being here.

Senator STEVENS. Senator Bumpers.

F/A-18 CAPABILITIES

Senator BUMPERS. Just so you can be thinking about it, I have two major areas of concern. One is what seems to me like a premature retirement of a lot of good ships, and second is the F-18.

I confess that I have been adamantly opposed to the Air Force's F-22. I thought that based on all the best information I could get that the F-18 was quite capable of defeating just about anything for the next 20 years, and so I opted for the E/F, and have been a staunch proponent of it.

Now, all the literature in the newspaper stories are casting very serious doubts on the capabilities of the E/F, wing drop, and other problems which the General Accounting Office [GAO] has identified.

This is like a lot of things, depending on who you talk to you get different answers on how severe the problems will be. The wing drop seems to be the most serious.

On the one hand the GAO says the development costs of that F-18E/F, to correct the wing drop and other problems, could be very substantial and well above the roughly \$4.9 billion scheduled for the development of the E/F and they are scheduled to come out with a new report, which I do not think has been released yet, setting out in a more precise way what these development costs are likely to be.

My question is: What do you say to the GAO report, which is pretty damning on the F-18?

Secretary DALTON. Senator Bumpers, we have gone through the GAO report and have very good answers for each of the points that they raise. The F-18E/F Super Hornet is an outstanding aircraft. It has much greater range than the C/D, its predecessor. It also has much greater stealth capability and much greater payload capability, both taking out and bringing back. It has much greater room for growth. There is no more room for growth in the C/D. The E/F is an aircraft that we have advanced to a long degree, as I said before, on time, on budget, underway.

The wing drop issue that you raise; on a scale of 1 to 10, I would characterize it as a 2 or a 3, 10 being a very severe problem. We have dealt with problems in this test program that are far more serious than the wing drop. We had issues with engines, and hydraulics, and so forth that may be considered fours or fives in terms of severity. This wing drop issue is not a significant problem. However, it is important to us to address it, and we are. We have a fix in hand to deal with that.

Senator BUMPERS. What is the fix?

Secretary DALTON. The fix is a perforated wing faring that is not going to have any negative impact with respect to range, stealth, any of the parameters that deal with the aircraft. We have done some testing with it and the testing has been very positive. We have not finished the testing but I am very optimistic that, indeed,

this problem has been addressed. We just need to finish the testing with it, but it is essentially done.

As I mentioned earlier, the CNO has actually been down to fly the aircraft, and is an aviator by his own warfare specialty in the Navy, and can address the specifics of it. Well, let me ask him to do that, if I could.

Senator BUMPERS. Before you do that, let me ask you, you are familiar, I am sure, with the GAO's recommendation, quote, "That the Secretary of Defense direct the Secretary of the Navy to not approve contracting for any additional F/A-18E/F's until the Navy demonstrates through flight testing that identified aircraft deficiencies have been corrected." Are you adhering to that?

Secretary DALTON. Senator Bumpers, I would not ask the Secretary of Defense to approve a funding request for this aircraft until I was convinced that, indeed, it was safe; that it had met the performance characteristics, and met the requirements that the aircraft should have.

So the Secretary does not have to worry about making the decision. I am not going to recommend that he make that decision until I am satisfied. But as I say, I feel very good about where we are today. All we need to do is complete this testing. We are very far down that road with respect to having dealt with that problem.

Senator BUMPERS. Admiral Johnson.

Admiral JOHNSON. To add, Senator Bumpers, the test program is a combination of flight testing, fluid dynamics testing, wind tunnel testing. Every move is being vetted by an independent blue ribbon panel of experts, so we have the right people working the issue.

As the Secretary said, this is not a big deal. Some would choose to make it so, but it is not a big deal. By the time it has to be dealt with in the context of the budget, the wing drop will be officially behind us.

The pathway we are on will take us to a Navy program review this month, if the weather allows to keep the flight testing going, this month, and it will be done.

The GAO report showed us no surprises. I will tell you, we had opened our books to them. We were very forthcoming with the test team. There were no show stoppers or surprises in there. This is a model program.

Senator BUMPERS. Well, Mr. Chairman, I will submit a few additional questions in writing to the Secretary. The GAO report, incidentally, that was promised for late February or March, to my knowledge, that has not come out, has it?

Secretary DALTON. No, sir; I have not seen the second report.

Senator BUMPERS. When I submit my questions, and I will put in the letter to you, I would prefer no answers until that report has come out, and we will see where we are then.

Secretary DALTON. Yes, sir; I will be happy to comply with that.

SHIP SERVICE LIFE

Senator BUMPERS. My other question is this: I know that the DDG-51's, the *Arleigh Burkes*, those are highly preferable ships in this environment, but we are retiring 5 frigates, 23 guided missile frigates, and a couple of *Virginia*-class cruisers, I think, notably,

the U.S.S. *Arkansas*, which is 19 years old, and was at the time promised a 35-year life. I mean we depend on those things here.

When you tell us a ship has a 35-year life, we expect it to have a 35-year life. Now, the rule is, No. 1, that it cannot meet the kind of new threat that you expect.

I have a question on that, what is the threat, and who is offering the threat? But you are familiar with Admiral Reason's, I think, where he said, "I would rather have three hulls than one *Arleigh Burke*," and we are putting a lot of good hulls that are not obviously quite state of the art in mothballs.

The U.S.S. *Arkansas* cost \$300 million. Today that ship would cost in the neighborhood of \$900 million. Now, if you can overhaul and refuel that ship for \$200 million, why is that not a good bargain for an additional 10 to 15 years of service?

Secretary DALTON. Well, Senator Bumpers, a nuclear-powered cruiser like the *Arkansas*, the overhaul and replacing the nuclear core, and so forth, it is a very expensive issue. As we have gone through this right-sizing process of downsizing, and ridding ourselves of older ships, we have used benchmarks of times like that to consider having ships like that decommissioned.

We have done the same thing with submarines.

Senator BUMPERS. Well, Mr. Chairman, I have taken up too much time already. General Krulak, I guess you are doing everything about right, I do not have any questions for you. [Laughter.]

Of course, as a marine, I would probably think that whether you were or not.

Senator STEVENS. Senator Domenici.

PERSONNEL PROBLEMS/STATISTICS

Senator DOMENICI. I just have a couple of questions. I understand there has been testimony regarding personnel problems such as Naval Academy cheating, those things are being addressed, but I would like to ask some other questions regarding personnel problems.

Do you have any way of comparing such things as spousal and child abuse 7 years ago, 8 years ago, versus now, substance abuse cases, maybe even divorces, while in the service, with families, versus another period of time?

I wonder if there is any indication that these kinds of problems are changed by deployments, long periods of deployment?

Secretary DALTON. Senator, first of all, one of the primary lessons of leadership that we teach our people is take care of your people. Indeed, we consider it the responsibility of commanding officers and unit leaders to be aware of what is going on in the lives of the people that they lead. In addition to that primary responsibility. Yes, sir, we do surveys on a regular basis with respect to seeing how we are doing with some of the things that you mentioned. For example, with regard to substance abuse, we have made great progress in the Navy Department with respect to that. In the eighties we had major problems with substance abuse, and in some cases we had ships with some 50 percent of our people testing positive with drugs. Today, we are essentially a drug-free Department of the Navy, because we administer tests on a routine basis, and, indeed, anyone who tests positively for drugs is signifi-

cantly disciplined and, indeed may be out of the service. So we have I think done very well with that.

Another issue that we have found that is at the core of some of the problems that you refer to is alcohol abuse. We have made a major effort in the Navy and in the Marine Corps to de-emphasize and de-glamorize the use of alcohol. We call the program in the Navy right spirit, and in the Marine Corps semper fit, and it is working. We have made significant progress in reducing problems that are related to alcohol, and we found that most of the things to which you referred, 80 or 90 percent of the cases turned out to be alcohol related. So getting to the core of that issue, I think, indeed, addresses it.

Senator DOMENICI. Do you have anything that compares years past with now in these areas?

Secretary DALTON. Yes, sir; I can answer that for the record. We do have some statistics we can show you with respect to that.

Senator DOMENICI. I think for myself, the General and the Admiral, I think you ought to be concerned about trends in these areas among the military personnel, because we all are looking at what is going to cause things to fall apart, and frankly, if you have drug abuse, and alcohol, and child and spousal abuse, and very high divorce rates, I mean pretty soon it is going to be very hard to keep people in the military, or they are not going to be the kind of people you have been bragging about as the best suited and most fit in the world.

So if you can supply something——

Secretary DALTON. Yes, sir.

Senator DOMENICI [continuing]. Showing some way to measure success, and if you do not have it, then maybe you ought to state in the record how you might go about doing some comparisons.

Secretary DALTON. Yes, sir; I'd be very happy to do that.

Senator DOMENICI. That is enough for that.

Secretary DALTON. Yes, sir.

Senator DOMENICI. The chairman has been very good in delaying for me, who came very, very late. I want to leave you with some written questions regarding the T-38.

Secretary DALTON. Yes, sir.

Senator DOMENICI. I mean the F-18. Excuse me. In detail. I have a number of questions about it, but now I want to ask you about your respective budgets, as it pertains to contracting out, or privatization.

PRIVATIZATION/OUTSOURCING

How did the Navy and the Marine Corps determine that contracting out saves 20 percent, and why did the Air Force assume a different savings? They claim 25 percent.

Could you tell us, what did you study and what are your models for saying that we are going to save 20 percent if we do these things?

Admiral JOHNSON. I will be happy to provide you the specific matrix for the record. I would comment, Senator Domenici, that the commitment that the Navy has made in this budget and the subsequent years is to study, via the A-76 process, 80,500 full-time equivalents. It gets back to the business of trying to control our in-

infrastructure, and reduce and be more efficient within our infrastructure.

I have heard numbers from 10 percent, to 35, to 40 percent goodness in those A-76 studies, depending on who you talk to and what the specifics of the study are. I am not smart enough today to tell you what the right number is, but I would tell you that our experience to date in the small samples we have had has been somewhere between 20 and 30 percent.

We will fund those studies to take us on a pathway to try to realize over \$1 billion a year in savings by 2003. That is a very ambitious plan, but it is one that we are taking forward in earnest, and I will provide the rest for the record, sir.

[The information follows:]

The savings reflected in the Navy's FYDP are derived from our expectation that "competition" not "contracting out" will result in significant savings. This expectation is based on research and analysis performed by the Center for Naval Analysis (CNA). CNA reviewed our experience implementing OMB Circular A-76 in the 1980's and found that "competition", not "contracting out", resulted in cost savings of approximately 30 percent, regardless of the outcome of the cost comparison. As a matter of interest, approximately half of the functions studied remained in-house after the competition, albeit in a more streamlined, efficient organization. CNA also reviewed the Navy's inventory of commercial activities and determined that conducting cost comparisons of activities involving approximately 80,000 full-time equivalents would yield the kind of savings we have incorporated into the Navy's FYDP. The CNA analysis formed the basis for Navy's competition savings projections. I cannot address the Air Force's savings assumptions, but I will be happy to provide you with a copy of CNA's analysis that forms the basis of our estimate that competition yields average savings of 30 percent.

General KRULAK. Sir, we are very cautious about putting wedges out there, thinking that we are going to reap great benefits.

We are doing exactly what Jay is saying, we are running the A-76 studies, we are putting money up front to get a good idea of what really we can expect in the out-years. But I think that both Jay and I have seen what can happen if you get too overenthused about money in the out-years if it does not come.

I would also echo the issue about the infrastructure, and go back. I think we all see an infrastructure problem, where you have too much infrastructure, and some of it is really not adding to the capability that you need, and sooner or later we are going to have to get at that.

Senator DOMENICI. General, and Mr. Secretary, and Admiral, I raise these questions because I understand how difficult it is when others are doing a quadrennial defense review and the dollar amount for you to save is set in advance from above.

You were told this is how much you have to spend on defense, and then you go about putting the pieces together. I am very concerned that somewhere along the line we were not going to be able to make ends meet. You came up with this privatization and contracting out to make the ends meet, and frankly, I do not think you are going to achieve it.

I am not suggesting that any of you have ulterior motives in putting it in, I just do not believe when push comes to shove you can save that much money. I do not think you are going to get them done, and I guess I just worry about that, because every year we think we have lived within our means, and there is always some-

thing that turns up that we could not achieve, and this could be a very big one when you consider all the services.

I would hope that you would advise us specifically how you are going to go about measuring this and what are your time intervals for making these decisions. Could you put that in a kind of record statement for us, so we will have some information.

Admiral JOHNSON. Yes, sir; I would be glad to, and we do have a good system for measuring that, but we will provide that to you.

Senator DOMENICI. On my previous question, when I asked you to submit more information, no aspersions on anybody at this table, but the Defense Department, in general, has difficulty answering questions like that in a timely manner. Normally, they take 2 or 3 months on any issues about marital abuse, drugs, and the like, I do not think it will do us much good unless you do it rather expeditiously.

Secretary DALTON. Yes, sir; we will provide an answer to you expeditiously.

[The information follows:]

SPOUSE AND CHILD ABUSE STATISTICS

	Fiscal year—							
	1990	1991	1992	1993	1994	1995	1996	1997
Reported Spouse Abuse Incidents	4,169	5,605	6,345	6,344	6,057	5,228	3,424	3,357
(Rate of incidents reported per 1,000 spouses)	(¹)	(¹)	(240)	(25.5)	(24.5)	(22.4)	(13.9)	(16.3)
Reported Child Abuse Incidents	3,735	4,997	5,351	5,368	4,122	3,822	2,435	2,606
(Rate of incidents reported per 1,000 children)	(¹)	(¹)	(13.1)	(13.5)	(13.8)	(10.5)	(7.1)	(7.8)

¹ Unknown.

Navy abuse incident reports have decreased significantly since fiscal year 1993. This trend may be due to downsizing, improved screening of cases through use of the Navy's Risk Assessment Model, and/or fear of adverse career consequences leading to decreased reporting. The Congressionally directed Abuse Victim Study showed that fear of negative career consequences for servicemembers was the major disincentive for reporting family violence (Defense Authorization Act for Fiscal Year 1993 (Public Law 102-484)).

We have no evidence or indication that deployments or long periods of deployment directly impact the incidence rates of child or spouse abuse. Personal childhood experiences, learned behavior patterns, and individual psychological factors are thought to influence the incidence of child or spouse abuse more directly. Situational family stress, such as work stress, does not appear to be a strong predictor of child or spouse abuse, but may increase risk when found in interaction with other known risk factors such as those above. We recently completed a survey of Navy recruits at Great Lakes Recruit Training Center which indicates that a significant number of recruits have a personal history of childhood physical and sexual abuse, along with exposure to a variety of other traumatic events. This history of childhood trauma, which predates entry into naval service, is likely to contribute to a variety of personnel and health problems unless assistance is provided. We are working on intervention programs to minimize the potential for negative consequences in the future.

ALCOHOL ABUSE STATISTICS

	Fiscal year—						
	1991	1992	1993	1994	1995	1996	1997
Total Alcohol Incidents	5,986	5,850	5,750	6,123	5,717	5,225	3,063
(Percent of total Navy Population)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Underage Drinkers	1,916	1,521	1,721	1,923	1,533	1,587	978

ALCOHOL ABUSE STATISTICS—Continued

	Fiscal year—						
	1991	1992	1993	1994	1995	1996	1997
(Percentage of total incidents)	(32)	(26)	(30)	(31)	(27)	(30)	(32)
Total Navy DWI's	4,900	3,440	2,544	2,357	2,043	1,905	1,066
DWI Underage Drinkers	1,068	666	315	263	198	179	107
(Percent of total DWI's)	(21)	(19)	(12)	(11)	(10)	(9)	(10)
Discharges for Alcohol Abuse	832	1,052	836	611	489	587	576
(Officer/Enlisted)	(3/829)	(5/1,047)	(3/833)	(1/610)	(2/487)	(0/587)	(0/576)

DRUG ABUSE STATISTICS

	Fiscal year—						
	1991	1992	1993	1994	1995	1996	1997
Total Sample Tested	1.40M	1.35M	1.22M	1.07M	992.8K	936.1K	446.5K
(Percent testing positive)	(.64)	(.80)	(.84)	(.96)	(.76)	(.66)	¹ (.84)
Discharges for Drug Abuse	2,221	3,350	2,971	2,491	2,216	1,982	1,972
(Officer/Enlisted)	(6/2,215)	(2/3,348)	(2/2,969)	(1/2,490)	(0/2,216)	(0/1,982)	(0/1,972)

¹ Through 2nd quarter.

DIVORCE STATISTICS

Navy does not have sufficient historical data concerning personnel divorces to show a trend in the last 7 or 8 years. 1997 was the first year questions concerning divorce were included in our annual Navy-wide Personnel Survey. Divorce trends can be determined as data from future Navy-wide Personnel Surveys are collected.

COAST GUARD/NAVY SHIP PROCUREMENT COMMONALITY

Senator DOMENICI. I have no further questions, Mr. Chairman.

Senator STEVENS. Thank you very much. Mr. Secretary, the Coast Guard has told us it wants to start a new long-range cutter in the year 2000, and it appears to us that there may be some commonality there between their program and your plans to start the DD-21 ship.

Have you had any conversations with the Coast Guard to see if it is possible to combine those programs for the efficiency that might come from buying two vessels at the same time?

Secretary DALTON. Mr. Chairman, I know that the Chief of Naval Operations has had some discussions with the Commandant of the Coast Guard, let me ask him to—

Senator STEVENS. Admiral Johnson.

Admiral JOHNSON. Yes, sir; I am talking to Bob Kramek, and our staffs are engaged. We are looking at all kinds of options for commonality, as they go forward and we go forward. You are right on with the question and the issue.

We need to do what makes sense for both of us. We are doing—incidentally, at this moment, we have just, in kind of a test case, turned one of our PC's over to the Coast Guard for them to evaluate for their use as well. We have a lot of interchange going on, and specific to DD-21, the answer is yes.

Senator STEVENS. Before he left Senator Bumpers asked me to inquire from you about the reenlistment rate of naval pilots. In past discussions we have now learned that the Air Force will cap their deployments in 45 days in the Iraq area because patrolling that no-fly zone is diminishing critical pilot skills for combat.

Could you tell us how you are going to handle your deployments there and what has been your recent reenlistment rate?

Admiral JOHNSON. Our deployments are fine, Mr. Chairman, in the context of the pilots, and the flight time, and the training. Because we are rotational we set a 6-month portal-to-portal limit on our deployments, a 2-to-1 turnaround ratio, minimum, and what we call a 50-percent home tempo, cast 2 years forward and 3 years back by the schedule. Those are the matrix by which we build the plans to deploy.

Everything we are doing today and out forward, whether it is two carrier battle groups in the Arabian Gulf, or wherever they are, the plans contain that matrix. The specific concern about the pilot retention is really a multifaceted reality, is probably the best way to say it. I am very concerned about the retention of our pilots. I do not believe that it is specifically tied to that deployment scheme. I believe that the most significant impacts come on, as I said earlier, not to pilots, but it relates directly to pilots, the non-deployed side of our lives.

We have to give them airplanes to fly. We have to give them the training throughout the turnaround. We have to compensate them, we have to care about them, and they will stay on the team, and we are executing a multipronged attack to deal with the pilot retention challenge right now.

Senator STEVENS. Are the Navy pilots going to take up part of the no-fly pattern—

Admiral JOHNSON. Indeed.

Senator STEVENS [continuing]. Flying those no-fly squares out there?

Admiral JOHNSON. Indeed. We have been part and parcel of Operation Southern Watch in the no-fly zone since the beginning—

PILOT RETENTION

Senator STEVENS. What has been your reenlistment record? The Air Force is somewhere between 29 and 33 percent.

Admiral JOHNSON. Yes, sir; ours is actually in the low thirties right now. I would tell you that if you want to look at the bonus take rate this year, if you aggregate the numbers, required versus taking the bonus right now, we are sitting at 59 percent, which you think, well, that sounds pretty good.

The truth of it is, in selected communities we are down in single digits, and so I have serious concerns, but my pilot retention concern is one where I would say, today, my pilot retention is not as critical as Gen. Mike Ryan would tell you, but as I tell him, I am trying to draw lead on it, because in 2 years, if I do not pay attention, and we do not do the things I am describing, we will be right where he is.

Senator STEVENS. I think that deployment, ready deployment, ought to be a good place to test that, and I would hope that you would monitor that.

Admiral JOHNSON. Yes, sir, we do.

Senator STEVENS. I cannot think of a worst deterrent for a combat-trained pilot to send him or her out to fly 3 and 4 hours in the morning and the afternoon on a square, I can tell you. A commuter

assignment on a local airplane, I believe, would be more preferable than that to any pilot, in my opinion.

Admiral JOHNSON. Yes, sir.

Senator STEVENS. At least keep track of it for us, will you?

Admiral JOHNSON. Yes, sir, Mr. Chairman. I would only add to you, sir, that we do have what I would consider a very good training and operational skill program that we execute in the gulf.

General KRULAK. I would also mention, sir, that we are out there flying, too, having the same issues facing us. We fly the same squares.

V-22

Senator STEVENS. I think it is going to impact us all. These are definite deployments in such an environment.

General, I want to chat with you a minute about the V-22. I notice that Senator Cochran has a couple more questions. I am told that the V-22 is now exceeding its maintenance goal by a factor of 200 percent, but we do have some problems about a cost overrun on the V-22.

Are you up to speed about the problems that the Marine Corps is encountering with the V-22, and can you give us any indication of what the program unit cost would be as a result of these problems?

General KRULAK. Well, first off, I would say that we really are not experiencing anything that I would term a major problem. We are right now, with the engineering manufacturing development [EMD] models, over 300 hours of test flights on the overall program, over almost 1,200 hours.

It has met for the first time its speed requirements, its max speed, it is doing well within the parameters. It has met or exceeded all the key performance parameters that we have established for it.

The issue that has come up that has caused a little consternation is a bearing problem that burned out on one of the test flights that caused us to look very hard at that, slow down, our test program for about 1 month, as we investigated what caused that to happen, and what would be a solution.

We found out the cause, and, in fact, we have solved it, but that put the testing back slightly. Obviously, when you have something like that the cost of the test program goes up a little bit.

We see none of those impacting on the entry of that system into the fleet, nor do they have a major impact on the overall cost of the aircraft. As a matter of fact, in June 1999, the Marine Corps will be standing up its training squadron for the V-22.

I mean we used to talk about, well, the V-22 is years and years away, we are going to stand up the first training squadron in June 1999.

So this aircraft is coming, it may not be coming as fast as we would all like it to come, but it is going to be here, and when it gets here, it is going to change not only the operational capability of all Armed Forces, there will be strategic implications with this system.

Senator STEVENS. I have been told that because of a series of critical problems that we are into a period of forced redesign por-

tions of the V-22. I am pleased to hear what you are saying about standing up the squadron, but can we do that with the rotor problems, and the problems of the bearing, and the nose gear, and the——

General KRULAK. Absolutely. The vast majority of those are already fixed. Like I said, the bearing has been solved, the nose gear is a minor fix. As we talk about any aircraft, as you go through the EMD, that is what it is for, to test the aircraft, find out what is not operating the way you want it to operate, and fix it.

There is nothing in this program that is causing me any concern. I am very excited about where we are going.

Senator STEVENS. None of them are safety related yet.

General KRULAK. No, sir; the issue of the bearing obviously caught our attention. We stopped flying in the parameter that that bearing failed on, we brought in the experts, they have come up with a fix, and we are back to flying at Pax River, and as a matter of fact, this last month got 50 hours in, which is pretty doggone good for a test in 1 month.

Senator STEVENS. I am sure you remember the history of that plane in this committee. I want to make certain that it follows——

General KRULAK. Sir, I absolutely remember that, and I can tell you, if anything came up that I was concerned with, I would be in front of this committee immediately.

Senator STEVENS. Let me shift back to you, Mr. Secretary. What about the year 2000 computer programming crisis that is affecting the Department, is that a serious problem for your Department and the Department of the Navy?

Secretary DALTON. Mr. Chairman, we are taking this problem very seriously. It impacts potentially every ship, submarine, aircraft, and shore installation in the Navy Department, as well as all of our supporting infrastructure. We are committed to preventing any year 2000 failures within naval units and facilities, and we have prioritized our funds to address accelerated resolution of any problems. We have established the target date of this summer, June 30, for completing the fixes.

I get quarterly reports on that, my next quarterly report for this quarter, as a matter of fact, is next week. I will see just how well we are doing with it. It also has the attention of Secretary Cohen, and he is asking for periodic reviews.

It is simply imperative that we address it, and that we resolve each of the problems within commands through the Navy Department to ensure that our critical warfighting and warfighting support capabilities all remain intact.

If we did not get this problem solved, clearly it would be a problem, a significant problem for the Department. So we are addressing it and are committed to it. We recognize the importance of it.

ADAK REUSE

Senator STEVENS. I am going to submit the rest of the questions, but I want to ask one question concerning my State, and that is the Adak series of questions that Senator Murkowski's legislation will deal with a permanent solution for Adak, we hope will be signed this year, but there is no guarantee that will take place, and

I know that you have been reluctant to work out an interim leasing arrangement.

People are going to take over that island, they have visited us now, and I think that we have informed the Navy, they have a substantial number of entities that wish to start leasing portions of that base, as it is going to be turned over to them, but some of the issues are perplexing out of your people.

One of them is that the Navy wishes to approve every visitor that comes to Adak, and second, that the Navy does not want to have families relocated to the portion of the former base that the Aleut people will take over under a temporary arrangement. Can you give us any idea of what the situation is going to be?

I was personally visited by some of the Russian people who intend to lease a portion of that for their water fleet, which does not fish in our waters, but is closer to their fishing grounds than their own home ports.

I think it is essential for us to move forward and see if we can utilize those facilities, if they are not occupied by families, they are going to have to be heated anyway, and it is a critical situation.

Can you give us just a minute or two, Mr. Secretary, what is the situation at Adak?

Secretary DALTON. Yes, sir; we have a proposed interim lease for the Navy facilities on Adak that we have been negotiating, I think, since the middle of February. This lease extends through the end of the year, December 31, 1998. After that, the military purpose ceases. Because the Navy will substantially conclude its environmental remediation by the end of this year, after the first of next year, the Interior Department assumes responsibility for the property, and would lease it to the Aleuts.

We support Senator Murkowski's proposed legislation, which will be the subject of a hearing, I think, before this committee this month. I think that legislation will transfer the property to the Aleut nations, and it would be done by the Interior Department.

Admiral JOHNSON. Sir, I really have nothing to add, except to say that we are going to be as supportive as we can possibly be to work this out, because I think it is in everyone's best interest to do so here in the short term.

Senator STEVENS. Yes, sir; well, we appreciate what you can do, I think it is a marvelous opportunity for these people, who have had really no basic commercial base before, to be able to utilize all those facilities. Senator Cochran.

NAVY THEATERWIDE MISSILE DEFENSE PROGRAM

Senator COCHRAN. Mr. Chairman, I know that Admiral Johnson has already answered a couple of questions about the Navy theaterwide missile defense program. Some recent reports, though, indicate that in the Pentagon there may be some who think that fielding both theater high altitude defense [THAAD] and the Navy theaterwide program will be unaffordable through 2005.

Is it not correct that these two systems complement each other, and that from an operational military perspective, the question of THAAD and Navy theaterwide is not an either/or proposition?

Admiral JOHNSON. My answer to that, Senator Cochran, is yes, I believe them to be complementary systems, and you know my en-

thusiasm for Navy theaterwide. I am not as conversant on THAAD, but I am very encouraged, I will tell you, by the cooperation.

In fact, I just spent 1½ hours with Admiral West, the Deputy at BMDO last week, talking about these issues, so I am encouraged by the way we are working together on this thing, and I am very anxious to get our system integrated.

Senator COCHRAN. Last year we added in this committee \$10 million to enhance the cooperative engagement capability [CEC] program by putting communications equipment on satellites.

Do you agree that by giving this additional capability to CEC that we will improve the military benefits of our sea-based missile defense capability?

Admiral JOHNSON. My specific answer would probably be best coming for the record, sir. My anecdotal answer would be yes, but let me get it for the record.

Senator COCHRAN. If you could, and identify the benefits of CEC for cruise and ballistic missile defense.

[The information follows:]

The Cooperative Engagement Capability (CEC) is a sensor netting system that can provide air defense systems with fire-control quality track information that can greatly enhance the sea-based missile defense capability. Navy priorities are to ensure the successful integration of CEC with surface ships and air-based sensors followed by the fielding of CEC on surface combatants, aircraft carriers, and amphibious ships. Funding is focused on achieving these goals.

Although the Navy has no current requirement for satellite range extension of CEC, the Navy has used past Congressional funding to evaluate existing and planned space-based sensors for potential integration with CEC. We've found that integration of CEC with SBIRS-Low provides the highest potential for military utility and have consequently invested \$3.7 million of the \$10 million of fiscal year 1998 Congressional funding to develop the engineering requirements for the integration of CEC with SBIRS-Low. Our studies also recommend Milstar MDR and Advanced EHF be explored as CEC relays. Although we are interested in pursuing this, the integration of CEC with ships and aircraft is the first step and has much higher priority. We need to spend the remainder of the Congressional funds to ensure that these near-term priorities of the CEC program are met.

Admiral JOHNSON. CEC is fundamental; it is fundamental to our theater and area systems. That is part of why we are embedding CEC into the entire aegis fleet, forward fit and back fit, so that we will be able to capitalize, if you will, and take advantage when the theater and area systems come to us. It is fundamental to that.

Senator COCHRAN. My final question on the subject of sea-based missile defense has to do with the fact that some of our *Spruance*, well, all of the *Arleigh Burke*-class destroyers are equipped with vertical launch systems, some other ships are as well, including cruisers, are provided adequate support from sensors, and a fast interceptor missile.

Is there any technical reason that we could not make use of these existing assets to provide national ballistic missile defense?

Admiral JOHNSON. You just tripped past this fighter pilot's base of knowledge on that, and I would be happy to provide that for the record.

Senator COCHRAN. That would be good. And we would also ask if you could point out for the record any technical or operational advantages for such an approach to national missile defense.

Admiral JOHNSON. Aye, aye, sir.

Senator COCHRAN. I have another question or two that I would like to submit to the Secretary as well, Mr. Chairman.

Senator STEVENS. Yes, sir, Senator. Thank you.
[The information follows:]

The Navy does not currently have a National Missile Defense (NMD) mission and consequently has no NMD program. The Navy's ballistic missile defense developments focus on the Navy Area TBMD and Navy Theater-wide TBMD (NTW) programs and are consistent with the Ballistic Missile Defense Organization's objectives. Both programs have been recently determined to be ABM Treaty compliant.

As you know, the current ABM Treaty permits limited capability for defense of a single U.S. missile field but prohibits the use of mobile land-based, air-based, sea-based and space-based systems in an NMD role. For discussion purposes, what follows assumes that use of sea-based systems would be permitted at some future time.

You asked, given sensor support and a fast interceptor missile, whether there is any technical reason that we could not make use of existing *Spruance* and *Arleigh Burke*-class ships for NMD. We believe that the ships you mention, indeed all our ships equipped with the Vertical Launching System, could feasibly be upgraded as you suggest. We have not examined this in depth or conducted an engineering analysis, however, and would have to do so to give you a firm answer and provide any estimates of cost. However, if given an NMD mission, our initial approach would be to modify our existing Aegis Cruisers to provide such a capability. The 22 VLS equipped cruisers would provide a sufficient force structure to deploy our initial capability.

As to the broader question of whether there are technical or operational advantages to equipping some of our ships to provide NMD, I believe there are enough indications that advantages exist to warrant a thorough examination.

As you know, BMDO is tasked by the fiscal year 1998 Defense Authorization Conference Committee to report its assessment of: the potential to upgrade the Navy's upper-tier program into a limited NMD capability; the technical feasibility of upgrades and integration on sea-based systems into land-based NMD; the additional benefits and costs of doing so; and the status of ABM Treaty compliance of a sea-based capability.

In view of BMDO's effort and as the Navy staff has not yet conducted an in-depth engineering analysis, I defer my response on technical and operational advantages of a Navy NMD role until after Lt Gen Lyles delivers his report to Congress on April 15, 1998. After that, I would be pleased to provide a briefing to the Committee to go over this issue in more detail.

RETENTION—EXIT SURVEYS

Senator STEVENS. Senator Domenici.

Senator DOMENICI. Mr. Chairman, I am not sure that the Defense Department, including the three gentlemen before us, are capable of giving us an analysis of why people are leaving the military, and I am not sure that they are capable of telling us why people do not leave the military.

So I would just like to ask, is it correct that there are some surveys done by the Navy and the Marines when people leave the service as to why they are leaving, and is that totally confidential, and are those who give the answers, are they totally protected against what they say?

Secretary DALTON. We certainly protect the privacy of the individual, Senator. However, as a matter of procedure, we have out calls with people when they leave the service. There they speak with their executive officer, or commanding officer, or leading division officer, in terms of assessing the person's plans for the future. The individual is asked about time aboard that ship or aboard that command, and in terms of assessing the reasons for the change in professional career plans.

But we also have that information that we can provide to you for the record with respect to what the statistics are, and what we find are some of the reasons.

[The information follows:]

We collect information on Sailors' attitudes through our Retention/Separation Questionnaire, given to enlisted Sailors when they reenlist, extend or separate. Officers are asked to complete the questionnaire when they leave active duty or execute a permanent change of station move. Response to the questionnaire is voluntary. Sailors are asked to rate their satisfaction with 45 aspects of Navy life and to identify the most important reason for leaving or thinking of leaving the Navy. Officer and Enlisted "Reasons for Leaving the Navy" data for the fourth quarter of fiscal year 1997 are attached.

ALL OFFICERS REASONS FOR LEAVING THE NAVY, FISCAL YEAR 1997/QTR4

Description	FYTD rank	Item	No. resp.	PCT	Qtr1 rank	Qtr2 rank	Qtr3 rank	Qtr4 rank
AMT OF FAMILY SEPARAT	1	37	368	17.53	1	1	1	1
PROM AND ADVANCE OPPORTUN	2	39	202	9.62	2	2	4	4
PAY (BASIC)	3	24	165	7.86	4	3	2	2
QUAL OF LEADERSHIP/MGMT	4	5	145	6.91	3	4	10	3
FAIRNESS IN PERFRM EVAL	5	45	110	5.24	6	5	5	7
ENJOYMENT FROM JOB	6	3	93	4.43	5	9	3	6
CONTROL OVER JOB ASGNMN	7	44	84	4.00	7	7	7	8
JOB FULFILLMENT/CHALLENGE	8	2	78	3.72	9	11	6	5
NUM OF PCS RELOCATIONS	9	20	74	3.53	12	6	16	10
QUAL OF NAVY LIFE	10	18	66	3.14	11	10	11	9
AMOUNT OF JOB SECURITY	11	31	64	3.05	8	12	9	11
RETIREMENT BENEFITS	12	26	53	2.53	14	8	17	15
LENGTH OF WORKING HOURS	13	8	50	2.38	16	17	15	12
AMOUNT OF SEA DUTY	14	16	49	2.33	19	16	8	13
COMPETENCE OF SUPERVIS	15	12	48	2.29	10	15	14	14
GEOGRAPHIC LOC OF JOBS	16	9	37	1.76	17	18	23	16
RECOG FOR ACCOMPLISH	17	7	36	1.72	13	14	22	24
AMT PERS AVL TO DO JOB	18	11	36	1.72	18	13	25	19
SPECIAL PAYS (BONUS)	19	25	34	1.62	26	20	12	18
USE OF SKL/TRNG ON JOB	20	42	29	1.38	22	27	13	20
SPOUSE CAREER OPPORTUN	21	19	27	1.29	28	22	24	17
AMOUNT OF PAPERWORK	22	10	26	1.24	31	19	20	21
RESPECT FROM SUPERIORS	23	1	25	1.19	15	25	18	29
QUAL AND AMOUNT EQUIP	24	14	22	1.05	24	21	27	25
QUAL OF FAM MED CARE	25	21	20	.95	25	26	29	26
AVL OF DEP MED/DEN CARE	26	38	20	.95	21	29	43	22
ASGN TO JOB W/TECH,PROF	27	41	20	.95	29	24	33	28
NUM OF QUICK RESP TASKS	28	6	18	.86	23	31	19	23
REGULATIONS AND DISCIPLIN	29	4	17	.81	20	28	21	31
COMPENS FOR PCS MOVES	30	30	15	.71	36	23	30	33
ASGNMNT TO LDRSHIP JOBS	31	43	13	.62	30	30	34	34
ACCESS TO EDUC/TRNG	32	40	12	.57	37	35	32	27
LIVING COND SEA AND OSEA	33	15	11	.52	27	33	35	30
QUAL OF GOVT HOUSING	34	17	7	.33	32	34	28	37
DEPENDENT FACIL/SCHOOLS	35	22	5	.24	34	41	36	32
MARRIED VS SINGLE PAY	36	28	5	.24	33	37	39	38
QUAL OF MED/DEN CARE	37	29	5	.24	35	32	40	41
COMPETENCE OF COWORKERS	38	13	4	.19	38	36	26	36
AVAIL OF HOUSING	39	35	4	.19	43	40	31	35
EDUCATION BENEFITS	40	27	1	.05	40	38	38	40
QUAL OF COMMISSARY/EXCH	41	32	1	.05	41	39	41	42
QUAL OF FAMILY SVC CEN	42	23	.....	.....	39	42	37	39
SUPPORT AND RECREAT SVCS	43	33	.....	.....	42	43	42	43
TOTAL .....	.....	.....	2,099	100.00	.....	.....	.....	.....

General KRULAK. Sir, we do run exit surveys, we do not keep the answers confidential, because we use them to improve and attack the very issues that cause that male or female marine to decide to go someplace else or take another job, so we look at that very closely.

The actual, whether or not we say who it came from, obviously, that is not what is important, what is important is what did they say, why are they leaving, and once we get that, we take steps to correct, if at all possible, the things that drove them out. Some of them cannot be corrected, others we believe can.

Senator DOMENICI. Admiral, what do you say about that?

Admiral JOHNSON. Very much the same as the Commandant, sir. We study and try to take action on separating priority criteria. It gets back to many things, there is no simple answer to it, as you well know, sir. It is a complex issue, with lots of moving parts, but some of it can be tied to family separation, some of it can be tied to compensation, some of it can be tied to Optempo, and so it goes.

What we are trying to do inside the Navy is to square with ourselves, on the leadership side, on the empowerment side, within the chain of command, on the execution side, on the funding streams, to allow them to train and be ready, and be proud, and these are pretty fundamental to ensuring that we do not get into the real retention traps, so it is a very complex thing, but the specific answer to your question is, yes, we know why they leave, we know what the surveys say, and we take them very seriously.

Senator DOMENICI. Are these surveys literally available?

Admiral JOHNSON. Yes, sir.

Senator DOMENICI. Are yours available?

General KRULAK. Yes, sir.

Senator DOMENICI. Are they only of people as they exit? Do you do any surveys of the people who stay in uniform?

Admiral JOHNSON. Yes, sir.

Senator DOMENICI. You do.

Admiral JOHNSON. We do that as well, but—

Senator DOMENICI. Are those anonymous?

Admiral JOHNSON. Yes, sir.

Senator DOMENICI. Could we have samples of those questionnaires, for the record, of what you do in that regard, surveys, or whatever they are?

Admiral JOHNSON. Absolutely. Yes, sir.

Senator DOMENICI. Could you tell us how they are analyzed, and who analyzes them?

General KRULAK. You bet.

Admiral JOHNSON. Yes, sir.

[The information follows:]

The Marine Corps has recently developed a survey to measure the opinions of both groups—those leaving the Corps as well as those who choose to stay. “The Marine Corps Climate Battery Surveys” include a variety of questions concerning retention and separation. Questions include both traditional personnel issues (such as pay, benefits, quality of life, harassment, and discrimination) and elements key to the business of the Marine Corps (leadership, training, and readiness). We will be able to use the information from this survey—the design of which was completed by the Center for Naval Analyses in November 1997—to help answer the following questions:

Do Marines’ opinions square with their behavior? Is there a relationship between the stay/leave decision and the reasons cited for each type of decision?

Are leavers more dissatisfied than stayers are? If so, on what aspect of Marine Corps life do leavers and stayers have significantly different opinions?

These surveys will be analyzed for trends (both good and bad) that provide an opportunity for the Corps to take corrective (or reinforcing) action. The analysis will be done by our Manpower Analysis, Evaluation, and Coordination Branch at Headquarters, Marine Corps.

**Appendix A: Marine Corps Climate Survey Questions
Codebook**

V1. Variable name: **MAINRSN**
Format: character
Retention survey: yes
Separation survey: yes

What is the main reason why you have decided to stay on (separate from)
active duty Marine Corps service?

V2. Variable name: **OFFENL**
Format: character
Retention survey: yes
Separation survey: yes

Please enter your status:
O. Officer (if = O then survey goes to V4)
E. Enlisted (if = E then go to V3)

V3. Variable name: **E_PG**
Format: character
Retention survey: yes
Separation survey: yes

Please select your paygrade:

1. E-1
2. E-2
3. E-3
4. E-4
5. E-5
6. E-6
7. E-7
8. E-8
9. E-9

V4. Variable name: **O_PG**

Format: character

Retention survey: yes

Separation survey: yes

Please select your paygrade:

- | | |
|----------|-------------------|
| 1. WO-1 | 9. O-1E |
| 2. CWO-2 | 10. O-2E |
| 3. CWO-3 | 11. O-3E |
| 4. CWO-4 | 12. O-4 |
| 5. CWO-5 | 13. O-5 |
| 6. O-1 | 14. O-6 |
| 7. O-2 | 15. O-7 and above |
| 8. O-3 | |

V5. Variable name: **ADVSTAT**

Format: character

Retention survey: yes (For Marines of rank E-5 and above)

Separation survey: yes (For Marines of rank E-5 and above)

What is your promotion/advancement status?

5. I'm not yet in zone
4. I'll be in primary zone for the next promotion board
1. I've been selected for promotion
2. I've been passed over once for promotion
3. I've been passed over 2 or more times for promotion

V6. Variable name: **REENLIST**

Format: character

Retention survey: yes, enlisted respondents only

Separation survey: yes, enlisted respondents only

How many times have you reenlisted in the Marine Corps?

Please do not include extensions.

0. I have never reenlisted (response valid only for separation survey)
1. I have reenlisted once
2. I have reenlisted twice
3. I have reenlisted 3 or more times

V7. Variable name: **INTENTION**

Format: character

Retention survey: yes (responses 1-4 only)

Separation survey: yes (responses 4-7 only)

Which of the following statements best describes your career intentions at this time?

1. I intend to stay on active duty until retirement
2. I intend to stay on active duty, but not until retirement
3. I'm eligible for retirement and intend to stay on
4. I'm not sure what I intend to do
5. I intend to leave the Marine Corps at my EAS/ECC
6. I'd like to stay on active duty but I'm not able to renew my contract at my EAS/ECC
7. I'm being involuntarily separated before reaching my EAS (this option for enlisted Marines only)
7. I'm being involuntarily separated (this option for officers only)

V8. Variable name: **RESERVES**

Format: character

Retention survey: no

Separation survey: yes

Do you intend to join the Marine Corps Reserves?

Y. Yes

U. Uncertain at this time

N. No

X. Not eligible

V9. Variable name: **INTENTYRS**

Format: numeric

Retention survey: yes

Separation survey: yes

How long did you originally plan to stay in the Marine Corps when you first joined?

1. To complete my initial contract
2. Beyond my initial contract and up to 10 years
3. More than 10 but less than 20 years
4. 20 or more years
0. I had no idea at the time

V10. Variable name: **OPTEMEXPEC**

Format: character

Retention survey: yes

Separation survey: yes

In my opinion, the operational tempo for the Marine Corps (i.e. number of contingencies, deployments, and exercises) currently is....

5. Very high

4. High

3. Moderate

2. Low

1. Very low

0. No opinion

V11. Variable name: **TIMEAWAY**

Format: character

Retention survey: yes

Separation survey: yes

How much time have your Marine Corps duties required you to be away from home during the past year? Include all time that you were away supporting ops and training away from barracks, home base, or station for periods of more than 24 hours. Also include unaccompanied FMF duty and temporary duty (TAD).

1. None at all

2. 1 day to less than 1 month

3. 1 month to less than 3 months

4. 3 months to less than 6 months

5. 6 months or more

V12. Variable name: **OPTEMPREAD**

Format: character

Retention survey: yes

Separation survey: yes

To maintain support of readiness, the operational tempo should be....

5. Greatly increased

4. Slightly increased

3. The same

2. Slightly decreased

1. Greatly decreased

0. No opinion

V13. Variable name: **EQUIPWAR**

Format: character

Retention survey: yes

Separation survey: yes

My unit has the necessary equipment to accomplish our mission.

- | | |
|-------------------------------|--------------------------------------|
| 5. Strongly agree | (if = 5 then survey goes to V15) |
| 4. Agree | (if = 4 then survey goes to V15) |
| 3. Neither agree nor disagree | (if = 3 then survey goes to V15) |
| 2. Disagree | (if = 2 then survey branches to V14) |
| 1. Strongly disagree | (if = 1 then survey branches to V14) |

V14. Variable name: **EQUIPNEE**

Format: character

Retention survey: yes, branch question from V13, response values 1 and 2

Separation survey: yes, branch question from V13, response values 1 and 2

What equipment do you need? Please type in your response below.

V15. Variable name: **TRNGLNGTH**

Format: character

Retention survey: yes

Separation survey: yes

The amount of training my unit has received has been enough to maintain a high level of readiness

- | | |
|-------------------------------|--------------------------------------|
| 5. Strongly agree | (if = 5 then survey goes to V17) |
| 4. Agree | (if = 4 then survey goes to V17) |
| 3. Neither agree nor disagree | (if = 3 then survey goes to V17) |
| 2. Disagree | (if = 2 then survey branches to V16) |
| 1. Strongly disagree | (if = 1 then survey branches to V16) |

V16. Variable name: **TRNGINADEQ**

Format: character

Retention survey: yes, branch question from V15, response values 1 and 2

Separation survey: yes, branch question from V15, response values 1 and 2

Where do you think training has been inadequate? Please select from the choices below. You may select more than one choice and you will be able to type in additional comments on the next screen.

1. Recruit/initial training
2. MOS training
3. On-the-job training
4. Professional military education
5. Exercises
6. Inspections

V17. Variable name: **TRNGINADCO**

Format: character

Retention survey: yes,

Separation survey: yes,

Where else do you think training has been inadequate? Please type in your response below.

V18. Variable name: **LEADOVL**

Format: character

Retention survey: yes

Exit survey: yes

How satisfied are you with the quality of leadership in the Marine Corps?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V19. Variable name: **COMMGOALS**

Format: character

Retention survey: yes

Separation survey: yes

My chain-of-command clearly communicates its goals to my unit.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V20. Variable name: **LISTENREC**

Format: character

Retention survey: yes

Separation survey: yes

During the last year, my recommendations have been fairly considered up my chain-of-command.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

0. Not applicable, I have made no recommendations during the last year

V21. Variable name: **CAREERDEV**

Format: character

Retention survey: yes

Separation survey: yes

My chain-of-command has shown clear interest in my career development.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V22. Variable name: **FEEDBACSAT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the level of feedback that you receive on your individual performance from your leaders?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V23. Variable name: **LEADBEHAV**

Format: character

Retention survey: yes

Separation survey: yes

My leaders demonstrate, through personal example, high standards of behavior and ethics.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V24. Variable name: **MISTAKRESP**

Format: character

Retention survey: yes

Separation survey: yes

When mistakes occur, those involved take responsibility.

1. All of the time
2. Most of the time
3. Some of the time
4. Seldom
5. Never

V25. Variable name: **OPENCANDID**
Format: character
Retention survey: yes
Separation survey: yes

Marines are encouraged to be open and candid with their leaders about problems.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V26. Variable name: **RULESREGS**
Format: character
Retention survey: yes
Separation survey: yes

I understand the rules and regulations of the Marine Corps.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V27. Variable name: **UNITMOTIV**
Format: character
Retention survey: yes
Separation survey: yes

The morale in my unit is....

5. Very high
4. High
3. Moderate
2. Low
1. Very low

V28. Variable name: **RESPONDEL**

Format: character

Retention survey: yes

Separation survey: yes

The amount of responsibility given to me is ...

- 5. A great deal (if = 5 then survey branches to V29)
- 4. Quite a bit (if = 4 then survey branches to V29)
- 3. Moderate (if = 3 then survey branches to V29)
- 2. Very little (if = 2 then survey branches to V29)
- 1. None at all (if = 1 then survey branches to V29)
- 0. No opinion (if = 0 then survey goes to V30)

V29. Variable name: **RESPONSAT**

Format: character

Retention survey: yes, branch question from V28, response values 1 – 5.

Separation survey: yes, branch question from V28, response values 1 – 5.

How satisfied are you with the amount of responsibility given to you?

- 5. Very satisfied
- 4. Satisfied
- 3. Neither satisfied nor dissatisfied
- 2. Dissatisfied
- 1. Very dissatisfied

V30. Variable name: **ZERODEFCMD**

Format: character

Retention survey: yes

Separation survey: yes

There has been some talk of a lack of understanding and tolerance in the Marine Corps for any type of mistake a Marine might make. How often have you observed this "zero-defect" standard applied to you or others in your unit during the last year?

- 1. All of the time
- 2. Most of the time
- 3. Some of the time
- 4. Seldom
- 5. Never
- 0. No opinion

V31. Variable name: **COUNS3MOS**

Format: character

Retention survey: yes

Separation survey: yes

How long has it been since the last time that you were officially counseled on your performance? The occasion of the submission of Fitness Reports or Pro/Con marks is not considered a time of counseling by the Marine Corps. Please do not include these occasions as official counseling times.

1. 1 month
2. 2 through 3 months
3. 4 through 6 months
4. 7 through 9 months
5. 10 through 12 months
6. More than 12 months
7. I have never been officially counseled on my performance
0. Not applicable

V32. Variable name: **ADVOPPSAT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the opportunities for promotion and advancement in the Marine Corps?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V33. Variable name: **PROMOTFAIR**

Format: character

Retention survey: yes

Separation survey: yes

Promotions in the Marine Corps are based on effective performance and competence.

- | | |
|-------------------------------|--------------------------------------|
| 5. Strongly agree | (if = 5 then survey goes to V35) |
| 4. Agree | (if = 4 then survey goes to V35) |
| 3. Neither agree nor disagree | (if = 3 then survey goes to V35) |
| 2. Disagree | (if = 2 then survey branches to V34) |
| 1. Strongly disagree | (if = 1 then survey branches to V34) |

V34. Variable name: **PROMBASE**

Format: character

Retention survey: yes, branch question from V33, response values 1 and 2.

Separation survey: yes, branch question from V33, response values 1 and 2.

Marine Corps promotions are based upon....

(Please select all that apply)

1. Gender
2. Race
3. Political concerns
4. Promotion precepts
5. Other (please specify)

V35. Variable name: **BESTREWARD**

Format: character

Retention survey: yes

Separation survey: yes

Rewards and recognition are justly given to Marines in my unit

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V36. Variable name: **RIGHTJOB**

Format: character

Retention survey: yes

Separation survey: yes

By and large, the right people are assigned to the right jobs in my UNIT.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V37. Variable name: **RIGHTJOBM**

Format: character

Retention survey: yes

Separation survey: yes

By and large, the right people are assigned to the right jobs in the MARINE CORPS.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V38. Variable name: **PRIMOS**

Format: character

Retention survey: yes

Separation survey: yes

Please select your PRIMARY MOS (occupational field) from the choices below.

01 Personnel and administration	58	Military police/corrections
02 Intelligence	59	Electronics maintenance
03 Infantry	60	Aircraft maintenance/fixed wing
04 Logistics		
08 Field artillery	61	Aircraft maintenance/helicopters
11 Utilities		
13 Engineer, construction, equipment	63	Avionics
18 Tank and assault amphibious vehicle	64	Avionics IMA
21 Ordnance	65	Aviation ordnance
23 Ammunition and explosive ordnance disposal	66	Aviation supply
25 Operation communications	68	Weather service
26 Signals intelligence/ground electronic warfare	70	Airfield services
	72	Air control/air support/antiair warfare
28 Data/communications maintenance	73	Air traffic control and enlisted flight crews
30 Supply administration/operations		
31 Traffic management	75	Pilots/Naval flight officers
33 Food service	81	Category B MOS
34 Auditing, finance, and accounting	82	Category B education
35 Motor transport	84	Category B MOS
40 Data systems	85	Category B MOS
41 Marine Corps exchange	86	Category B MOS
43 Public affairs	88	Category B MOS
44 Legal services	89	Category B MOS
46 Training, printing production and visual information support	90	Category B MOS
55 Music	96	Special education program
57 Nuclear, biological, chemical	97	Joint specialty identifying/reporting MOS
	98	Marine Band identifying/reporting MOS
	99	Other identifying/reporting MOS

Based upon the Marine's choice of occupational field, a second screen on survey will prompt the Marine to "select one choice from the following to complete your four-digit secondary occupational field/MOS."

Users of the survey data should refer to the most recent version of form NAVMC 1008-A for the complete USMC numerical index of military occupational specialties.

V39. Variable name: **SECMOS**
 Format: character
 Retention survey: yes
 Separation survey: yes

Please select your **SECONDARY MOS** (occupational field) from the choices below.

01 Personnel and administration	58	Military police/corrections
02 Intelligence	59	Electronics maintenance
03 Infantry	60	Aircraft maintenance/fixed wing
04 Logistics		
08 Field artillery	61	Aircraft maintenance/helicopters
11 Utilities		
13 Engineer, construction, equipment	63	Avionics
18 Tank and assault amphibious vehicle	64	Avionics IMA
21 Ordnance	65	Aviation ordnance
23 Ammunition and explosive ordnance disposal	66	Aviation supply
25 Operation communications	68	Weather service
26 Signals intelligence/ground electronic warfare	70	Airfield services
	72	Air control/air support/antiair warfare
28 Data/communications maintenance	73	Air traffic control and enlisted flight crews
30 Supply administration/operations		
31 Traffic management	75	Pilots/Naval flight officers
33 Food service	81	Category B MOS
34 Auditing, finance, and accounting	82	Category B education
35 Motor transport	84	Category B MOS
40 Data systems	85	Category B MOS
41 Marine Corps exchange	86	Category B MOS
43 Public affairs	88	Category B MOS
44 Legal services	89	Category B MOS
46 Training, printing production and visual information support	90	Category B MOS
55 Music	96	Special education program
57 Nuclear, biological, chemical	97	Joint specialty identifying/reporting MOS
	98	Marine Band identifying/reporting MOS
	99	Other identifying/reporting MOS
	00	I do not have a secondary MOS

Based upon the Marine's choice of occupational field, a second screen on survey will prompt the Marine to "select one choice from the following to complete your four-digit secondary occupational field/MOS."

Users of the survey data should refer to the most recent version of form NAVMC 1008-A for the complete USMC numerical index of military occupational specialties.

V40. Variable name: **BILMOS**

Format: character

Retention survey: yes

Separation survey: yes

Please select your BILLET MOS (occupational field) from the choices below.

01 Personnel and administration	58	Military police/corrections
02 Intelligence	59	Electronics maintenance
03 Infantry	60	Aircraft maintenance/ fixed wing
04 Logistics	61	Aircraft maintenance/ helicopters
08 Field artillery	63	Avionics
11 Utilities	64	Avionics IMA
13 Engineer, construction, equipment	65	Aviation ordnance
18 Tank and assault amphibious vehicle	66	Aviation supply
21 Ordnance	68	Weather service
23 Ammunition and explosive ordnance disposal	70	Airfield services
25 Operation communications	72	Air control/air support/ antiair warfare
26 Signals intelligence/ground electronic warfare	73	Air traffic control and enlisted flight crews
28 Data/communications maintenance	75	Pilots/Naval flight officers
30 Supply administration/operations	81	Category B MOS
31 Traffic management	82	Category B education
33 Food service	84	Category B MOS
34 Auditing, finance, and accounting	86	Category B MOS
35 Motor transport	88	Category B MOS
40 Data systems	89	Category B MOS
41 Marine Corps exchange	90	Category B MOS
44 Legal services	96	Special education program
46 Training, printing production and visual information support	97	Joint specialty identifying/ reporting MOS
55 Music	98	Marine Band identifying/ reporting MOS
57 Nuclear, biological, chemical	99	Other identifying/ reporting MOS
	00	I don't know /I'm not sure

Based upon the Marine's choice of occupational field, a second screen on survey will prompt the Marine to "select one choice from the following to complete your four-digit secondary occupational field/MOS."

Users of the survey data should refer to the most recent version of form NAVMC 1008-A for the complete USMC numerical index of military occupational specialties.

- V41. Variable name: **MOSORIG**
Format: character
Retention survey: yes
Separation survey: yes

Have you done or are you doing the things you expected to be doing when you **ORIGINALLY** joined the Marine Corps?

Y. Yes

N. No

E. I had no expectations regarding my job as a Marine

- V42. Variable name: **JOBASN**
Format: character
Retention survey: yes
Separation survey: yes (replace words "to stay in" with "to leave, or consider leaving")

The type of job assignments I **HAVE HAD** strongly influenced my desire to stay in the Marine Corps.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V43. Variable name: **JOBFUTURE**

Format: character

Retention survey: yes

Separation survey: yes (replace words "to stay" with "to leave, or consider leaving")

The type of job assignments I could EXPECT have strongly influenced my desire to stay in the Marine Corps.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V44. Variable name: **ACCOMPSAT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with your feelings of accomplishment on the job?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V45. Variable name: **JOBSECSAT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied have you been with your job security in the Marine Corps?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V46. Variable name: **WORKFAIR**
Format: character
Retention survey: yes
Separation survey: yes

The distribution of workload in my unit is fair and equitable.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V47. Variable name: **LOADPREG**
Format: character
Retention survey: yes
Separation survey: yes

During the last year, have you had to "pick-up-the-load" for others due to their absence by reason of PREGNANCY (pregnancy includes maternity and paternity leave)?

5. Never
4. Seldom
3. Some of the time
2. Most of the time
1. All of the time
0. Not applicable, there have been no pregnancies in my unit during the last year.

V48. Variable name: **LOADILL**
Format: character
Retention survey: yes
Separation survey: yes

During the last year, have you had to "pick-up-the-load for others because they were SICK or INJURED?

5. Never
4. Seldom
3. Some of the time
2. Most of the time
1. All of the time
0. Not applicable, no one has been sick or injured in my unit during the last year.

V49. Variable name: **LOADUA**

Format: character

Retention survey: yes

Separation survey: yes

During the last year, have you had to "pick-up-the-load" for others because they were unwilling to do their job?

5. Never
4. Seldom
3. Some of the time
2. Most of the time
1. All of the time

V50. Variable name: **HELPGOALS**

Format: character

Retention survey: yes

Separation survey: yes

I feel my contributions have helped my unit accomplish its mission.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V51. Variable name: **CHALJOBSAT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the level of challenge in your current job?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V52. Variable name: **JOBSATIS**

Format: character

Retention survey: yes

Separation survey: yes

Overall, how satisfied are you with your career in the Marine Corps?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V53. Variable name: **PUBLICSUP**

Format: character

Retention survey: yes

Separation survey: yes

In general, Americans support the United States Marine Corps.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V54. Variable name: **MARAGAIN**

Format: character

Retention survey: yes

Separation survey: yes

If I had to do it over, I'd again choose to be a United States Marine.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V55. Variable name: **MARREC**
Format: character
Retention survey: yes
Separation survey: yes

I'd recommend the Marine Corps to a friend or relative.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V56. Variable name: **DISCRMGENU**
Format: character
Retention survey: yes
Separation survey: yes

I believe that the actions of my UNIT clearly support an environment free of discrimination based on GENDER.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V57. Variable name: **DISCRMGENM**
Format: character
Retention survey: yes
Separation survey: yes

I believe that the actions of the MARINE CORPS clearly support an environment free of discrimination based on GENDER.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V58. Variable name: **DISCRMRAU**

Format: character
Retention survey: yes
Separation survey: yes

I believe that the actions of my UNIT clearly support an environment free of discrimination based on RACE or ETHNICITY.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V59. Variable name: **DISCRMRAU**

Format: character
Retention survey: yes
Separation survey: yes

I believe that the actions of the MARINE CORPS clearly support an environment free of discrimination based on RACE or ETHNICITY.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V60. Variable name: **DISCRMRELU**

Format: character
Retention survey: yes
Separation survey: yes

I believe that the actions of my UNIT clearly support an environment free of discrimination based on RELIGION.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V61. Variable name: **DISCRMREL**

Format: character

Retention survey: yes

Separation survey: yes

I believe that the actions of the MARINE CORPS clearly support an environment free of discrimination based on RELIGION.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V62. Variable name: **TREATFAIRM**

Format: character

Retention survey: yes

Separation survey: yes

Marine Corps policies are fair.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V63. Variable name: **PUNISHM**

Format: character

Retention survey: yes

Separation survey: yes

Compared to others at my command who commit the same offense, MINORITIES can expect to receive (fill in with a selection from below) punishments.

1. Much harsher

2. Slightly harsher

3. The same

4. Slightly more lenient

5. Much more lenient

V64. Variable name: **PUNISHW**

Format: character

Retention survey: yes

Separation survey: yes

Compared to men at my command who commit the same offense, WOMEN can expect to receive (fill in with a selection from below) punishment.

1. Much harsher
2. Slightly harsher
3. The same
4. Slightly more lenient
5. Much more lenient
0. Not applicable, there are no women at my command

V65. Variable name: **PUNISHS**

Format: character

Retention survey: yes

Separation survey: yes

Compared to others at my command who commit the same offense, HIGHER RANKING MARINES can expect to receive (fill in with a selection from below) punishment.

1. Much harsher
2. Slightly harsher
3. The same
4. Slightly more lenient
5. Much more lenient

V66. Variable name: **USMCWOMEN**

Format: character

Retention survey: yes

Separation survey: yes

Do you think women should be assigned to combat positions in the Marine Corps?

- Y. Yes
U. Uncertain
N. No

V67. Variable name: **WOMENINT**

Format: character

Retention survey: yes

Separation survey: yes

To what extent do you think the Marine Corps has been successful in assigning women to a wider range of jobs?

5. A great deal

4. Quite a bit

3. Moderate

2. Very little

1. None at all

0. No opinion

V68. Variable name: **SEXHARASS**

Format: character

Retention survey: yes

Separation survey: yes

As a Marine, have you ever been SEXUALLY HARASSED?

Y. Yes (if = Y then survey branches to V69 for separation survey only)

U. Uncertain (if = U then survey goes to V70)

N. No (if = N then survey goes to V70)

V69. Variable name: **HARASSEP**

Format: character

Retention survey: no

Separation survey: yes, for respondents replying 'yes' to V68

To what extent did your sexual harassment experience(s) influence your decision to get out?

1. None at all

2. Very little

3. Moderate

4. Quite a bit

5. A great deal

V70. Variable name: **DISCRIM**

Format: character
Retention survey: yes
Separation survey: yes

As a Marine, have you ever been DISCRIMINATED against because of your race, gender, religion, or national origin?

- Y. Yes (if = Y then survey branches to V71)
- U. Uncertain (if = U then survey goes to V72)
- N. No (if = N then survey goes to V72)

V71. Variable name: **DISCRIMTYP**

Format: character
Retention survey: yes
Separation survey: yes, for respondents replying 'yes' to V70

What was the source of discrimination? (Please select all that apply).

- 1. Racial
- 2. Gender-based
- 3. Religious
- 4. National origin

V72. Variable name: **DISCRIMSEP**

Format: character
Retention survey: no
Separation survey: yes, for respondents replying 'yes' to V70

To what extent did this discrimination influence your decision to get out?

- 1. None at all
- 2. Very little
- 3. Moderate
- 4. Quite a bit
- 5. A great deal

V73. Variable name: **MARITAL**

Format: character

Retention survey: yes

Separation survey: yes

What is your current marital status?

S. Single and never divorced (if = S then survey goes to V77)

D. Single and divorced (if = D then survey goes to V77)

L. Legally separated (if = L then survey branches to V74)

M. Married (if = M then survey branches to V74)

W. Widowed (if = W then survey goes to V77)

V74. Variable name: **SPOUSE**

Format: character

Retention survey: yes

Separation survey: yes

Is your spouse military or civilian?

M. Military (active)

R. Military (reserve)

C. Civilian

V75. Variable name: **SPOUSJOB**

Format: character

Retention survey: yes

Separation survey: yes

What is your spouse's employment situation?

Please check all that apply.

1. My spouse is a homemaker

2. My spouse is self-employed at home

3. My spouse owns and/or operates a business outside the home

4. My spouse works in a civilian job full-time

5. My spouse works in a civilian job, part-time

6. My spouse is unemployed, but actively seeking employment

7. My spouse is a student

8. My spouse is active duty military

9. My spouse works as a volunteer

V76. Variable name: **SPOUJOBOPP**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied was your spouse with job opportunities in the area of your current duty station?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

0. Not applicable, my spouse is active duty military

V77. Variable name: **DEPNS**

Format: character

Retention survey: yes

Separation survey: yes

Who are your dependents? (Please select all that apply).

0. I have no dependents

1. Spouse only

2. Child(ren) only

3. Spouse and child(ren)

4. Legal ward(s)

5. Dependent parent(s) or other relative(s)

6. Relative(s) who aren't authorized dependents

7. Other(s) who aren't authorized dependents

V78. Variable name: **SCHOOL**

Format: character

Retention survey: yes

Separation survey: yes

My child(ren) attend the following type(s) of schools.

Please select all that apply.

0. I have no children of school age
1. Civilian (public) school
2. Private or parochial school
5. DoDS school (overseas DoD-operated school)
6. DoDDes school (continental U.S. DoD-operated school)
7. Home school
8. College
9. Trade school

V79. Variable name: **SCHOOLSAT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the public school system at your duty station?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied
0. Not applicable

V80. Variable name: **DAYCAREFAC**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the COST of child daycare facilities in your area?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied
0. Not applicable

V81. Variable name: **DAYCARE**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the AVAILABILITY of child daycare facilities in your area?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

0. Not applicable

V82. Variable name: **DAYCAREQ**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the QUALITY of child daycare facilities in your area?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

0. Not applicable

V83. Variable name: **EFMUSE**

Format: character

Retention survey: yes

Separation survey: yes

Have you used the Exceptional Family Member Program during the last year?

Y. Yes (if = Y then survey branches to V84)

N. No (if = N then survey goes to V85)

V84. Variable name: **EFMSAT**

Format: character

Retention survey: yes, for those responding "yes" to V83

Separation survey: yes, for those responding "yes" to V83

How satisfied are you with the Exceptional Family Member program?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V85. Variable name: **DENINS**

Format: character

Retention survey: yes

Separation survey: yes

Do you participate in the dependent dental insurance program?

Y. Yes (if = Y then branch to V92)

N. No (if = N then go to V93)

U. Unsure (if = U then go to V93)

V86. Variable name: **DENSAT**

Format: character

Retention survey: yes, branch question for those responding "yes" to V91

Separation survey: yes, branch question for those responding "yes" to V91

How satisfied are you with the dependent dental insurance program?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V87. Variable name: **MEDAVAIL**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the AVAILABILITY of your OWN MEDICAL care?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V88. Variable name: **MEDQUAL**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the QUALITY of your OWN MEDICAL care?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V89. Variable name: **DENAVAIL**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the AVAILABILITY of your OWN DENTAL care?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V90. Variable name: **DENQUAL**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the QUALITY of your OWN DENTAL care?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V91. Variable name: **MEDFAMA**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the AVAILABILITY of FAMILY MEDICAL care?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V92. Variable name: **MEDFAMQ**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the QUALITY of FAMILY MEDICAL care?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V93. Variable name: **BENMED**

Format: character

Retention survey: yes

Separation survey: yes (replace words "to stay" with "to leave, or to consider leaving")

To what extent did MEDICAL benefits influence your decision to stay in the Marine Corps?

5. A great deal

4. Quite a bit

3. Moderate

2. Very little

1. None at all

V94. Variable name: **FSCUTIL**

Format: character

Retention survey: yes

Separation survey: yes

How often have you and/or your family used the Family Service Center in the last year?

0. None

1. 1-5 times

2. 6-10 times

3. 11-15 times

4. 16-20 times

5. Greater than 20 times

V95. Variable name: **FSCSATIS**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the helpfulness of the Family Service Center in meeting your personal and/or family needs during the last year?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

0. Not applicable, have not used the FSC during the last year.

V96. Variable name: **OWNHOUSING**

Format: character

Retention survey: yes

Separation survey: yes

Which of the following best describes the place where you now live?

1. Bachelor quarters (BEQ or BOQ)
2. Military family housing, on base
3. Military family housing in the civilian community
4. Personally-owned housing in the civilian community
5. Personally-rented housing in the civilian community
6. Shared rental housing in the civilian community
7. Mobile home
8. Aboard ship
9. Some other place (please specify)

V97. Variable name: **FAMLIVING**

Format: character

Retention survey: yes

Separation survey: yes

What is your FAMILY living arrangement? Please select all that apply.

1. I live with my spouse and/or children
2. I live with relatives (parents, in-laws, etc.)
3. I live apart from my spouse and children
4. I live alone
5. I am a geographic bachelor
6. I live with friends or roommates
0. Some other arrangement (please specify)

V98. Variable name: **HOUSRSNRET**

Format: character

Retention survey: yes

Separation survey: yes (replace words "to stay" with "to leave, or consider leaving the Marine Corps")

My housing situation has had a strong effect on my desire to stay in the Marine Corps.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V99. Variable name: **QTRSQUAL**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the place where you currently live?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V100. Variable name: **QTRSAVAL**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the AVAILABILITY of government quarters?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V101. Variable name: **SAFEHOOD**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the safety and security of your neighborhood?

5. Very satisfied

4. Satisfied

3. Neither satisfied nor dissatisfied

2. Dissatisfied

1. Very dissatisfied

V102. Variable name: **HOMEBASE**

Format: character

Retention survey: yes

Separation survey: yes

I prefer to be stationed in one location for longer than one tour.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V103. Variable name: **PCSRSN**

Format: character

Retention survey: yes

Separation survey: yes (replace words "to stay in" with "to leave, or consider leaving")

My PREVIOUS duty assignment locations have had a strong effect on my desire to stay in the Marine Corps.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V104. Variable name: **CURRENT**

Format: character

Retention survey: yes

Separation survey: yes (replace words "to stay in" with "to leave, or to consider leaving")

My CURRENT duty assignment location has a strong effect on my desire to stay in the Marine Corps.

5. Strongly agree

4. Agree

3. Neither agree nor disagree

2. Disagree

1. Strongly disagree

V105. Variable name: **FUTURE**

Format: character

Retention survey: yes

Separation survey: yes (replace words "to stay in" with "to leave, or to consider leaving")

Possible FUTURE duty assignment locations have had a strong effect on my desire to stay in the Marine Corps.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree

V106. Variable name: **VHA**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the amount you receive for your housing allowance (including both VHA and BAQ)?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied
0. Not applicable

V107. Variable name: **SPONSAT**

Format: character

Retention survey: yes

Separation survey: yes

To what extent has the sponsorship program helped you and/or your family settle into a new assignment?

5. A great deal
4. Quite a bit
3. Moderate
2. Very little
1. None at all
0. I am not familiar with this program

V108. Variable name: **COPEDEPLOY**

Format: character

Retention survey: yes

Separation survey: yes

My family has been able to cope quite well during my deployments, UDPs, or other assignments away from home.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree
0. Not applicable

V109. Variable name: **ALWAYSAT**

Format: character

Retention survey: yes

Exit survey: yes

During your time in the Marine Corps, how satisfied have you been with the amount of time you spent with your family?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V110. Variable name: **FAMSUPPORT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied were you with the family support provided by the command's KEY VOLUNTEERS while you were away?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied
0. Not applicable

V111. Variable name: **MILCOMP**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the total amount of compensation you receive (your compensation includes all your different types of monetary pay and benefits, such as medical, dental, and retirement)?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V112. Variable name: **BASEPAYSAT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the AMOUNT of your base pay?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V113. Variable name: **SPECPAYSAT**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the AMOUNT of special pays, such as bonuses or special duty assignment pay?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied
0. Not applicable

V114. Variable name: **SPECPAYAVL**

Format: character

Retention survey: yes

Separation survey: yes

How satisfied are you with the AVAILABILITY of special pays, such as bonuses or special duty assignment pay?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V115. Variable name: **SPECPAY**

Format: character

Retention survey: yes

Separation survey: yes

To what extent has the amount or availability of special pays and/or bonuses influenced your decision to stay in the Marine Corps?

5. A great deal
4. Quite a bit
3. Moderate
2. Very little
1. None at all
0. No opinion

V116. Variable name: **PCSPAYFAIR**

Format: character

Retention survey: yes

Separation survey: yes

Reimbursement for PCS moves has been fair and adequate.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree
0. Not applicable

V117. Variable name: **BENMWR**

Format: character
Retention survey: yes
Separation survey: yes

How satisfied are you with the MWR benefits (recreation, theatre, sports, fitness equipment, etc.) available at your current duty station?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V118. Variable name: **BENEDU**

Format: character
Retention survey: yes
Separation survey: yes

How satisfied are you with the EDUCATIONAL ASSISTANCE (such as the GI Bill, VEAP, tuition assistance, MECAP, BOOST, degree completion, SEP, funded law, etc) opportunities within the Marine Corps?

5. Very satisfied
4. Satisfied
3. Neither satisfied nor dissatisfied
2. Dissatisfied
1. Very dissatisfied

V119. Variable name: **BENRETIRE**

Format: character
Retention survey: yes
Separation survey: yes (replace words "am staying" with "leaving or considering leaving")

The retirement benefit is a significant reason why I am staying in the Marine Corps.

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree
1. Strongly disagree
0. Not applicable

V120. Variable name: **BENEFITS**

Format: character

Retention survey: yes

Separation survey: yes

Generally, my observation is that benefits are....

5. Greatly improving
4. Improving
3. Staying the same
2. Slowly eroding
1. Being severely cut

V121. Variable name: **TIPG**

Format: numeric

Retention survey: yes

Separation survey: yes

How long have you been in your present paygrade?

0. Less than 1 year
1. 1 to under 2 years
2. 2 to under 3 years
3. 3 to under 4 years
4. 4 to under 5 years
5. 5 to under 6 years
6. 6 or more years

V122. Variable name: **TIS**

Format: numeric

Retention survey: yes

Separation survey: yes

How long, in years, have you been on active duty in the Marine Corps?

V123. Variable name: **OTHSVC**

Format: character

Retention survey: yes

Separation survey: yes

Have you served in another branch of the armed forces?

- Y. Yes (if = Y then survey branches to V124)
N. No (if = N then survey goes to V126)

V124. Variable name: **OTHBRANCH**

Format: character
Retention survey: yes
Separation survey: yes

Which branch did you serve in?

- A. Army
- AR. Army reserve
- C. Coast Guard
- CR. Coast Guard reserve
- F. Air Force
- FR. Air Force reserve
- N. Navy
- NR. Navy reserve
- P. Public Health Service
- MR. Marine Corps reserve

V125. Variable name: **OTHSVCYRS**

Format: numeric
Retention survey: yes
Separation survey: yes
How long did you serve? Please type in the number of years below.

V126. Variable name: **SEX**

Format: character
Retention survey: yes
Separation survey: yes

What is your sex?

- F. Female
- M. Male

V127. Variable name: **HISPANIC**

Format: character
Retention survey: yes
Separation survey: yes

Are you of Hispanic/Latino/Spanish descent?

- Y. Yes
- N. No

V128. Variable name: **RACE**

Format: character

Retention survey: yes

Separation survey: yes

What is your race? You may select more than one if you have a combined racial heritage.

W. White/Caucasian

B. Black/African American

A. Asian or Pacific Islander (Filipino, Guamanian, etc.)

I. Native American, including American Indian, Aleut, Inuit, and Eskimo

O. Other

V129. Variable name: **RELIGION**

Format: character

Retention survey: yes

Separation survey: yes

What is your religious preference?

1. Catholic

2. Protestant (Baptist, Methodist, Lutheran, etc.)

3. Jewish

4. Orthodox churches (Greek, Russian, etc.)

5. Muslim

6. Buddhist

7. Mormon

8. Some other religion (please specify)

0. No religious preference

V130. Variable name: **EDUC**
Format: character
Retention survey: yes
Separation survey: yes

What is your highest level of education?

1. Less than high school degree
2. High school equivalency (GED)
3. High school adult education equivalency
4. High school certificate of completion
5. High school diploma
6. Less than one year of college
7. One or more years college, no degree
- A. Associate's degree
- B. Bachelor's degree
- M. Master's degree
- D. Doctoral or professional degree

V131. Variable name: **UNITTYPE**
Format: character
Retention survey: yes
Separation survey: yes

What is the type of unit you are currently assigned to?

Please enter the one choice that best fits.

- | | |
|-----------------------------|------------------------|
| B. Base/station | C. Recruiter |
| D. Division | R. Regiment |
| X. Drill instructor | Q. Reserve support |
| E. Embassy | O. Sgt. instructor OCS |
| F. FSSG | P. Ship's company |
| H. HQMC | G. SRIG |
| I. Instructor (MOS) | S. Squadron |
| J. Joint duty | T. Training support |
| K. Marine barracks | W. Wing |
| Y. Marine support battalion | Z. Other—not listed |
| M. MSG | |

V132. Variable name: **ASGNMTLOC**

Format: character

Retention survey: yes

Separation survey: yes

Where are you presently stationed?

AL. Albany	NO. Norfolk
BA. Barstow	PI. Parris Island
BE. Beaufort	QU. Quantico
LE. Camp Lejeune	SD. San Diego
PE. Camp Pendleton	SL. St. Louis
CH. Cherry Point	TP. 29 Palms
ET. El Toro	TU. Tustin
KC. Kansas City	YU. Yuma
MI. Miramar	SH. Ship
NR. New River	OC. Other CONUS

Washington, D.C. area:

HQ. HQMC
HH. Henderson Hall
EI. 8th and I
PT. Pentagon
DC. DC other

Overseas (OCONUS):

HI. Hawaii
IW. Iwakuni
OJ. Okinawa
PN. Panama
OO. Other OCONUS

V133. Variable name: **DEPLOYSTAT**

Format: character

Retention survey: yes

Separation survey: yes

What is your current deployment status?

1. I've deployed in the last 12 months
2. I'm currently deployed
3. I'm preparing to go on a deployment
0. None of the above

V134. Variable name: **DOB**
Format: numeric
Retention survey: yes
Separation survey: yes

What is your year of birth? Please select your year of birth from the list provided. The valid birth dates range in year from 1930 through 1990.

V135. Variable name: **OTHER**
Format: character
Retention survey: yes
Separation survey: yes (replace the word "remain" with the word "leave")

Please list any other reasons you chose to remain in the Marine Corps that have not been covered in the survey?

V136. Variable name: **RECORD**
Format: numeric
Retention survey: yes
Separation survey: yes
Computer generated identification number

V137. Variable name: **COUNTER** (optional)
Format: numeric
Retention survey: yes
Separation survey: yes

If desired, the user of the survey may add this optional variable to their database. The survey software does not generate this variable.

Senator DOMENICI. Now, I want you to know, and none of this is directed at any of you, or anybody in the hierarchy, in terms of any accusations, it is just that we still read a lot of things, and sometimes what is written is not very authentic, or it is very small, but we read in various military papers, other newspapers that cover the military, that there are a lot of complaints that have to do with leadership within the military by those who fly airplanes, by those who are leaving. That is hard stuff for those who are leaders to hear, and it is certainly hard to do anything about it.

I trust you implicitly that you would be interested in them, knowing what they think about you, you and those under you, and that you would try to do something about it. I know in the military somebody gives orders and somebody takes orders, and I understand that. You cannot have a military without that.

So I would like you to give us for the record everything you do in an effort to find out what those people leaving think has gone wrong, and whatever you do to those that are not exiting, find out what is wrong that you might have to fix. If you can give us that for the record, that would be very appreciated by this Senator.

Admiral JOHNSON. I will be glad to.

[The information follows:]

The annual Navy-wide Personnel Survey and Quality of Life Survey were designed to collect opinion data on a systematic basis and to provide timely informa-

tion on issues of importance to policy makers. The samplings, representative of the entire Navy population, allow the identification and analysis of trends in opinions and attitudes toward plans, programs, and policies that materially affect the performance and morale of Navy Personnel. Both surveys are administered and analyzed by the Navy Personnel Research and Development Center in San Diego, California. Copies of the 1997 Navy-wide Personnel Survey and 1997 Quality of Life Survey are provided for the record.

We also collect information on Sailors' attitudes through our Retention/Separation Questionnaire, given to enlisted Sailors when they reenlist, extend or separate. Officers are asked to complete the questionnaire when they leave active duty or execute a permanent change of station move. Response to the questionnaire is voluntary. Sailors are asked to rate their satisfaction with 45 aspects of Navy life and to identify the most important reason for leaving or thinking of leaving the Navy. A copy of the Navy Retention/Separation Questionnaire and OPNAV Instruction are provided for the record. Officer and Enlisted "Reasons for Leaving the Navy" data for the fourth quarter of fiscal year 1997 are also attached.

1997 Navy Quality of Life Survey

**"Your opinions will help us decide
which Quality of Life Programs we
should expand and which ones we
should reduce or eliminate."**



RADM L. R. Marsh
Deputy Chief of Naval Personnel/
Commander Navy Personnel Command

Bureau of Naval Personnel Washington, D.C. 20370-5000


Navy Personnel Research and Development Center San Diego, CA 92152-7250

PRIVACY ACT STATEMENT




Authority to request this information is granted under Title 5, U.S. Code 301. License to administer this survey is granted under OPNAV Report Control Symbol 1740-2, which expires on 31 July 1998. 1) **PURPOSE:** The purpose of this questionnaire is to collect data to evaluate existing Navy personnel policies, procedures, and programs. 2) **ROUTINE USES:** The information provided in this questionnaire will be analyzed by the Navy Personnel Research and Development Center. The data files will be maintained by the Navy Personnel Survey System at the Navy Personnel Research and Development Center. 3) **CONFIDENTIALITY:** All responses will be held in confidence by the Navy Personnel Research and Development Center. Information you provide will be considered only when statistically combined with the responses of others, and will not be identified with any single individual. 4) **PARTICIPATION:** Completion of this questionnaire is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except lack of representation of your views in the final results and outcomes.


IMPORTANT INSTRUCTIONS

- **USE NO. 2 PENCIL ONLY.**
- **Do NOT use ink, ballpoint or felt tip pens.**
- **Erase cleanly and completely any changes you make.**
- **Make black marks that fill the circle.**
- **Do not make stray marks on the form.**
- **Do not fold, tear, or mutilate this form.**



USE A NO. 2 PENCIL ONLY

WRONG MARKS:   

RIGHT MARK: 

→
Please read the following introduction
before proceeding!
←

1997 Navy Quality of Life Survey Introduction

The purpose of this questionnaire is to obtain your opinions on some of the Navy's Quality of Life Programs. Your opinions will be used to help the Navy make decisions about which programs to expand and which ones to reduce or eliminate. Here's your chance to influence Navy policies!

Quality of Life Programs are divided into five categories:

1. Voluntary Education
2. Healthy Living
3. Morale, Welfare, and Recreation (MWR)
4. Family Service Center (FSC)
5. Personal Growth and Enrichment

The descriptions of various Quality of Life Programs are given now for your information. Please read these descriptions carefully before offering your opinions on the programs later in the questionnaire.

Voluntary Education

PACE (Program for Afloat College Education) -- freshman and sophomore college courses for Sailors at sea

Academic Skills -- reading, basic math, grammar, writing, and basic science

Montgomery GI Bill -- federal educational benefit program available to service members entering after 1 July 1985

Tuition Assistance -- provides full payment for courses needed to complete high school, partial payment for other courses

Navy Campus Education Centers -- offices staffed by civilian education specialists who help Sailors select and process educational program plans

Healthy Living

Drug and Alcohol Abuse Prevention Programs -- includes PREVENT (Personal Responsibility and Values Education and Training), Alcohol Impact (alcohol incident follow-up), and Alcohol-AWARE (alcohol information course)

Health and Physical Readiness Programs -- programs to support healthy lifestyle choices; includes Smoking Cessation Program, Navy Weight Control Manual, Command Weekly Exercise and Remedial Exercise Programs, Computer-Assisted Menu Planning, and Suicide Prevention; does not include gyms and fitness centers

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Morale, Welfare, and Recreation (MWR)

MWR Programs Afloat -- recreational and fitness activities offered on ships targeted to the health and well-being of Sailors while afloat

MWR Fitness and Sports Ashore -- activities targeted to the health and well-being of Sailors and their families to include gyms, fields and courts, fitness centers, swimming pools, and intramural sports

MWR Recreation Activities Ashore -- facilities and programs designed for recreational purposes (e.g., golf courses, movie theaters, tickets and tours)

Single Sailor Program Ashore -- program to meet leisure needs, develop social skills, and enhance quality of life of single Sailors age 18-25

Child Development Programs--care of children aged six weeks to five years (e.g., in Navy operated or contracted child development centers)

Youth Programs -- age appropriate recreational and personal development activities for children in kindergarten through twelfth grade (includes before and after school care)

Family Service Center (FSC)

Information and Referral -- answers questions about the Navy, the local installation, and how to access military benefits, etc.; when necessary, provides referral to services available in the community

Individual, Marital, Family, and Group Counseling --professional counselors help clients manage their problems, such as financial difficulties, career concerns, and family issues

New Parent Support-- offers information, education, and home visits to new parents to increase quality parenting in the Navy

Mobilization and Deployment Support -- conducts pre-deployment briefings, and supports families and members during deployment, return, and reunion

Personal Financial Management --supports and trains command financial specialists; works with resources within the community such as the Navy Marine Corps Relief Society

Crisis Response -- helps address community-wide, command-wide, or personal crises through programs such as Sexual Assault Victims Intervention (SAVI) programs and resources, Victim's Advocacy, Sexual Abuse Awareness and Prevention Education, and Crisis Response

Sexual Assault Victims Intervention (SAVI) Program -- provides a comprehensive, standardized, victim-sensitive system to prevent and respond to sexual assault Navy-wide through SAVI services such as awareness and prevention education, victim advocacy, and data collection

Relocation Assistance -- provides support in finding housing, spouse employment, settling in, and child care using a database describing hundreds of duty stations

Transition Assistance -- provides critical career counseling and employment resources for transition to the civilian sector

Spouse Employment Assistance -- holds job fairs, supplies local job listings, and advises on resumes and interviews

Volunteer Program -- provides opportunities to help others, make new friends, learn about local community, and contact future employers

Good Relationships, Strong Marriages, and Healthy Families -- offers training and support on communication skills, life skills, and coping skills with emphasis on the importance of core values in all relationships, especially dating and marriage

Exceptional Family Members Program -- families are required to register for this program if they have a family member with special requirements

Outreach and Command Representative Program -- provides a direct link and personal familiarity between commands and the FSC (the Ombudsman Program is one example)

Family Advocacy -- addresses prevention of and intervention for child abuse/neglect and spousal abuse

Personal Growth and Enrichment

Chaplain Religious Enrichment Development Operation (CREDO) -- promotes personal and spiritual development in Sea Service personnel through a variety of retreats such as Personal Growth Retreats (PGRs), Marriage Enrichment Retreats, Spiritual Retreats, and Team-building Retreats

Some of the Navy's Quality of Life Programs are preventive in nature (e.g., Sexual Abuse Awareness and Prevention, Drug and Alcohol Abuse Prevention, and Family Advocacy). They give individuals information that may prevent problems before they happen.

1. In your opinion, to what extent do preventive programs keep problems from arising?

☐ Little or no extent
☐ Some extent
☐ A moderate extent
☐ A great extent
☐ A very great extent

2. How supportive is your command when you or your family experience serious personal problems (e.g., financial problems, divorce, and domestic violence)?

☐ Very unsupportive
☐ Unsupportive
☐ Neither supportive nor unsupportive
☐ Supportive
☐ Very supportive

3. A. Service Member and Family Support Programs are listed below. If you or your family have used or received information from these programs, please rate their quality.

B. If you mark "Not used" for a program, please indicate why by selecting one of the reasons in Section B.

Programs	A. Quality					B. Reason Not Used			
	Not used	Very poor	Poor	Average	Very good	Not needed services	Not available	Not reasonable	Have not heard of it
Voluntary Education									
a. PACE (Program for Afloat College Education)									
b. Academic Skills									
c. Montgomery GI Bill									
d. Tuition Assistance									
e. Navy Campus Education Centers									
Healthy Living									
f. Drug and Alcohol Abuse Prevention									
g. Health and Physical Readiness									
Morale, Welfare, and Recreation (MWR)									
h. MWR Programs Afloat									
i. MWR Sports and Fitness Ashore									
j. MWR Recreation Activities Ashore									
k. Single Sailor Program Ashore									
l. Child Development Programs									
m. Youth Programs									
Family Service Center									
n. Information and Referral									
o. Individual, Marital, Family, and Group Counseling									
p. New Parent Support									
q. Mobilization and Deployment Support									
r. Personal Financial Management									
s. Crisis Response									
t. Sexual Assault Intervention									
u. Relocation Assistance									
v. Transition Assistance									
w. Spouse Employment Assistance									
x. Volunteer Program									
y. Good Relationships, Strong Marriages, and Healthy Families									
z. Exceptional Family Member Program									
aa. Outreach and Command Representative Program									
bb. Family Advocacy									
Personal Growth and Enrichment									
cc. Chaplains Religious Enrichment Development Operation (CREDO)									

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4. What is your overall assessment of the various types of programs? Specifically, to what extent does **each** type of program meet your or your family's needs?

	Not applicable	Little or no extent	A moderate extent	A great extent
a. Voluntary Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Healthy Living	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Morale, Welfare, and Recreation (MWR)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Family Service Center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Personal Growth and Enrichment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

As you know, the Navy has experienced cutbacks in money. As a result, it cannot continue to support all Quality of Life Programs at the same levels as it has in the past. Navy policy-makers would appreciate your assistance in deciding which programs are the most important. With that in mind, please answer Question 5.

5. In your opinion, which programs are the most important for the Navy to support? (Select up to 10.)

Voluntary Education

- ☐ PACE (Program for Afloat College Education)
- ☐ Academic Skills
- ☐ Montgomery GI Bill
- ☐ Tuition Assistance
- ☐ Navy Campus Education Centers

Healthy Living

- ☐ Drug and Alcohol Abuse Prevention
- ☐ Health and Physical Readiness

Morale, Welfare, and Recreation (MWR)

- ☐ MWR Programs Afloat
- ☐ MWR Sports and Fitness Ashore
- ☐ MWR Recreation Activities Ashore
- ☐ Single Sailor Program Ashore
- ☐ Child Development Programs
- ☐ Youth Programs

Family Service Center

- ☐ Information and Referral
- ☐ Individual, Marital, Family, and Group Counseling
- ☐ New Parent Support
- ☐ Mobilization and Deployment Support
- ☐ Personal Financial Management
- ☐ Crisis Response
- ☐ Sexual Assault Intervention
- ☐ Relocation Assistance
- ☐ Transition Assistance
- ☐ Spouse Employment Assistance
- ☐ Volunteer Program
- ☐ Good Relationships, Strong Marriages, and Healthy Families
- ☐ Exceptional Family Member Program
- ☐ Outreach and Command Representative Program
- ☐ Family Advocacy

Personal Growth and Enrichment

- ☐ Chaplains Religious Enrichment Development Operation (CREDO)

6. What are your current Navy career plans?

- ☐ Stay until eligible to retire
- ☐ Leave before eligible to retire
- ☐ Undecided

7. Would you reconsider your career plans if the Navy **reduced or eliminated** any of the programs listed below?

- ☐ Yes
- ☐ No (skip to Question 8)

If Yes: The reduction or elimination of which programs would make you reconsider your career plans? (Select up to five (5) of the 29, then proceed to Question 8.)

Voluntary Education

- ☐ PACE (Program for Afloat College Education)
- ☐ Academic Skills
- ☐ Montgomery GI Bill
- ☐ Tuition Assistance
- ☐ Navy Campus Education Centers

Healthy Living

- ☐ Drug and Alcohol Abuse Prevention
- ☐ Health and Physical Readiness

Morale, Welfare, and Recreation (MWR)

- ☐ MWR Programs Afloat
- ☐ MWR Sports and Fitness Ashore
- ☐ MWR Recreation Activities Ashore
- ☐ Single Sailor Program Ashore
- ☐ Child Development Programs
- ☐ Youth Programs

Family Service Center

- ☐ Information and Referral
- ☐ Individual, Marital, Family, and Group Counseling
- ☐ New Parent Support
- ☐ Mobilization and Deployment Support
- ☐ Personal Financial Management
- ☐ Crisis Response
- ☐ Sexual Assault Intervention
- ☐ Relocation Assistance
- ☐ Transition Assistance
- ☐ Spouse Employment Assistance
- ☐ Volunteer Program
- ☐ Good Relationships, Strong Marriages, and Healthy Families
- ☐ Exceptional Family Member Program
- ☐ Outreach and Command Representative Program
- ☐ Family Advocacy

Personal Growth and Enrichment

- ☐ Chaplains Religious Enrichment Development Operation (CREDO)

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8. Would you reconsider your career plans if the Navy **expanded** any of the programs listed below?

☐ Yes
☐ No (skip to Question 9)

→ If Yes: The **expansion** of which programs would make you reconsider your career plans? (Select **up to five (5)** of the 29, then proceed to Question 9.)

Voluntary Education

☐ PACE (Program for Afloat College Education)
☐ Academic Skills
☐ Montgomery GI Bill
☐ Tuition Assistance
☐ Navy Campus Education Centers

Healthy Living

☐ Drug and Alcohol Abuse Prevention
☐ Health and Physical Readiness

Morale, Welfare, and Recreation (MWR)

☐ MWR Programs Afloat
☐ MWR Sports and Fitness Ashore
☐ MWR Recreation Activities Ashore
☐ Single Sailor Program Ashore
☐ Child Development Programs
☐ Youth Programs

Family Service Center

☐ Information and Referral
☐ Individual, Marital, Family, and Group Counseling
☐ New Parent Support
☐ Mobilization and Deployment Support
☐ Personal Financial Management
☐ Crisis Response
☐ Sexual Assault Intervention
☐ Relocation Assistance
☐ Transition Assistance
☐ Spouse Employment Assistance
☐ Volunteer Program
☐ Good Relationships, Strong Marriages, and Healthy Families
☐ Exceptional Family Member Program
☐ Outreach and Command Representative Program
☐ Family Advocacy

Personal Growth and Enrichment

☐ Chaplains Religious Enrichment Development Operation (CREDO)

Personal Readiness is defined as an individual's ability to carry out his or her assigned tasks in support of the unit's mission.

9. Your ability to perform your assigned tasks is one of the Navy's top priorities. With that in mind, how well has the Navy done to ensure that you have...

	Very poorly	Poorly	Neither well nor poorly	Very well	Not applicable
a. The knowledge to perform your assigned tasks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The technical skills to perform your assigned tasks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. The physical skills to perform your assigned tasks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. The motivation to perform your assigned tasks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Overall level of personal readiness needed to perform your assigned tasks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please continue on next page →

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10. Which of the programs are **LEAST IMPORTANT** and which of the programs are **MOST IMPORTANT** for maintaining your readiness? (Select **up to five (5)** of the 29 programs under "Least Important" and **up to five (5)** of the 29 programs under "Most Important".)

	Least Important	Most Important
Voluntary Education		
a. PACE (Program for Afloat College Education)		
b. Academic Skills		
c. Montgomery GI Bill		
d. Tuition Assistance		
e. Navy Campus Education Centers		
Healthy Living		
f. Drug and Alcohol Abuse Prevention		
g. Health and Physical Readiness		
Morale, Welfare, and Recreation (MWR)		
h. MWR Programs Afloat		
i. MWR Sports and Fitness Ashore		
j. MWR Recreation Activities Ashore		
k. Single Sailor Program Ashore		
l. Child Development Programs		
m. Youth Programs		
Family Service Center		
n. Information and Referral		
o. Individual, Marital, Family, and Group Counseling		
p. New Parent Support		
q. Mobilization and Deployment Support		
r. Personal Financial Management		
s. Crisis Response		
t. Sexual Assault Intervention		
u. Relocation Assistance		
v. Transition Assistance		
w. Spouse Employment Assistance		
x. Volunteer Program		
y. Good Relationships, Strong Marriages, and Healthy Families		
z. Exceptional Family Member Program		
aa. Outreach and Command Representative Program		
bb. Family Advocacy		
Personal Growth and Enrichment		
cc. Chaplains Religious Enrichment Development Operation (CR2DO)		

11. Are you currently in one of the following leadership roles: CO, XO, Department Head, Division Officer, LCPD, or LPO?

☐ Yes

☐ No (skip to Question 13)

12. If you are in a leadership role, how important are each of the below types of programs for maintaining your Sailor's readiness?

	Very Unimportant	Unimportant	Neutral	Important	Very Important
a. Voluntary Education					
b. Healthy Living					
c. Morale, Welfare, and Recreation (MWR)					
d. Family Service Center					
e. Personal Growth and Enrichment					

13. Which answer **best** describes how you feel about your life as a whole at this time?

☐ Terrible

☐ Unhappy

☐ Mostly unhappy

☐ Neither unhappy nor happy

☐ Mostly happy

☐ Pleased

☐ Delighted

14. Below are pairs of words that can apply to how you feel about your life as a whole. For example, if you think your life is very boring, fill in the circle closest to "boring"; if you think your life is very interesting, fill in the circle closest to "interesting." If your life falls somewhere in between, fill in one of the circles in between to indicate how boring or interesting you think your life is. Fill in **one** circle for each line.

Boring						Interesting
Miserable						Enjoyable
Useless						Satisfying
Lonely						Friendly
Empty						Full
Discouraging						Hopeful
Disappointing						Exciting

15. Think of a good friend of yours in the Navy who is about your age. How does your life as a whole compare to your friend's life?

☐ A lot worse

☐ Considerably worse

☐ A little worse

☐ About the same

☐ A little better

☐ Considerably better

☐ A lot better

16. We would like to know how satisfied you are with your life right now. How much do you agree with the following statements?

☐ Strongly agree
☐ Somewhat agree
☐ Somewhat disagree
☐ Strongly disagree

a. Overall, I have a good quality of life. ☐ ☐ ☐ ☐ ☐
 b. For the most part, I have an enjoyable life. ☐ ☐ ☐ ☐ ☐
 c. I am satisfied with my life the way it is right now. ☐ ☐ ☐ ☐ ☐

BACKGROUND

PERSONAL

17. What is your gender?

☐ Male
☐ Female

Regarding Question 18, if you are of mixed heritage, please select the racial group with which you MOST closely identify.

18. What is your racial background?

☐ White
☐ Black/African-American
☐ Asian/Pacific Islander
☐ American Indian
☐ Other

19. Is your ethnic background Spanish/Hispanic?

☐ Yes
☐ No

20. What was your marital status 12 months ago?

☐ Single, never married
☐ Married
☐ Legally separated or filing for divorce
☐ Divorced
☐ Widowed

21. What is your current marital status?

☐ Single, never married
☐ Married
☐ Legally separated or filing for divorce
☐ Divorced
☐ Widowed

22. Do you have a spouse?

☐ Yes
☐ No (skip to Question 26)

23. Is your spouse Active Duty Military?

☐ Yes
☐ No

24. Is your spouse employed?

☐ Yes, full-time
☐ Yes, part-time
☐ No (skip to Question 26)

25. Where does your spouse work?

☐ In the home
☐ Outside the home

If you have NO children, or NO children under 21 years of age living in your household, or NO children under age 24 and enrolled full-time in college, fill in this circle ☐ and skip to Question 28.

26. How many of your children enrolled in DEERS live in your household? Include children for whom you have joint custody.

AGE GROUP OF CHILDREN	NUMBER OF CHILDREN IN AGE GROUP
a. Under 5 weeks	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
b. 6 wks through 12 mos	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
c. 13 through 24 mos	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
d. 25 through 35 mos	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
e. 3 through 5 yrs	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
f. 6 through 9 yrs	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
g. 10 through 12 yrs	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
h. 13 through 15 yrs	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
i. 16 through 20 yrs	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
j. 21 through 24 yrs	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4

27. Who is the primary caregiver for your child(ren) during your regular work day/shift?

☐ Military child development center
☐ Base-licensed family home care
☐ Civilian (non-relative) caregiver or child care center
☐ Cared for in home or in relative's home
☐ Children don't require child care
☐ Currently have no child care arrangements

28. Are you accompanied by the family members in your household on your present assignment?

☐ Yes
☐ Temporarily unaccompanied (family members will join me)
☐ Permanently unaccompanied by choice
☐ Permanently unaccompanied for other reasons
☐ Not applicable

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<p>29. Where do you live?</p> <p> <input type="radio"/> On-base housing <input type="radio"/> Off-base military housing <input type="radio"/> Personally owned housing <input type="radio"/> Renting (civilian housing) <input type="radio"/> Bachelor's Quarters (BQ) or Visiting Officers' Quarters (VOC) <input type="radio"/> On a ship <input type="radio"/> Other </p> <p>30. Where does your family live?</p> <p> <input type="radio"/> Not applicable <input type="radio"/> On-base housing <input type="radio"/> Off-base military housing <input type="radio"/> Personally owned housing <input type="radio"/> Renting (civilian housing) <input type="radio"/> Other </p> <div style="text-align: center; border: 1px solid black; border-radius: 10px; padding: 2px; margin: 10px 0;">EDUCATION</div> <p>31. What was your educational level when you entered the Navy?</p> <p> <input type="radio"/> No high school diploma <input type="radio"/> High school diploma/GED <input type="radio"/> Some college courses <input type="radio"/> Vocational certificate <input type="radio"/> Associate's degree <input type="radio"/> Bachelor's degree <input type="radio"/> Master's degree or doctorate </p> <p>32. What is your current educational level?</p> <p> <input type="radio"/> No high school diploma <input type="radio"/> High school diploma/GED <input type="radio"/> Some college courses <input type="radio"/> Vocational certificate <input type="radio"/> Associate's degree <input type="radio"/> Bachelor's degree <input type="radio"/> Master's degree or doctorate </p> <p>33. What educational goals do you plan to achieve while in the Navy?</p> <p> <input type="radio"/> None at the present time <input type="radio"/> High school diploma/GED <input type="radio"/> Vocational certificate <input type="radio"/> Associate's degree <input type="radio"/> Bachelor's degree <input type="radio"/> Master's degree or doctorate <input type="radio"/> Post-doctoral degree </p> <div style="text-align: center; border: 1px solid black; border-radius: 10px; padding: 2px; margin: 10px 0;">CAREER</div> <p>34. What is your paygrade?</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="radio"/> E-2 <input type="radio"/> E-3 <input type="radio"/> E-4 <input type="radio"/> E-5 <input type="radio"/> E-6 <input type="radio"/> E-7 <input type="radio"/> E-8 <input type="radio"/> E-9 </td> <td style="width: 33%; vertical-align: top;"> <input type="radio"/> W-1 <input type="radio"/> W-2 <input type="radio"/> W-3 <input type="radio"/> W-4 <input type="radio"/> O-1E <input type="radio"/> O-2E <input type="radio"/> O-3E </td> <td style="width: 33%; vertical-align: top;"> <input type="radio"/> O-1 <input type="radio"/> O-2 <input type="radio"/> O-3 <input type="radio"/> O-4 <input type="radio"/> O-5 <input type="radio"/> O-6 <input type="radio"/> O-7 or above </td> </tr> </table>	<input type="radio"/> E-2 <input type="radio"/> E-3 <input type="radio"/> E-4 <input type="radio"/> E-5 <input type="radio"/> E-6 <input type="radio"/> E-7 <input type="radio"/> E-8 <input type="radio"/> E-9	<input type="radio"/> W-1 <input type="radio"/> W-2 <input type="radio"/> W-3 <input type="radio"/> W-4 <input type="radio"/> O-1E <input type="radio"/> O-2E <input type="radio"/> O-3E	<input type="radio"/> O-1 <input type="radio"/> O-2 <input type="radio"/> O-3 <input type="radio"/> O-4 <input type="radio"/> O-5 <input type="radio"/> O-6 <input type="radio"/> O-7 or above	<p>35. If you are a Chief Petty Officer, Petty Officer, or an officially DESIGNATED STRIKER (qualified to wear the striker rating badge), what is your general rating (e.g., AW, ET, CTI)? Only use your rating, not paygrade, such as AW not AWC. (Begin lettering in the LEFT column.)</p> <p> <input type="radio"/> Does not apply/I am an officer <input type="radio"/> Not rated/not designated striker </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td><td>9</td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td><td>9</td></tr> </table> <p>36. What is your commissioned designator? (Begin numbering in the LEFT column.)</p> <p> <input type="radio"/> Does not apply/I am enlisted </p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td><td>9</td></tr> </table> <p>37. How long have you been on Active Duty in the Navy? Count the time from the day you were sworn in. (Fill in all columns; i.e., 1 year = 01 and 9 months = 09)</p> <table style="width: 100%; border: none;"> <tr> <th style="text-align: center;">Years</th> <th style="text-align: center;">Months</th> </tr> <tr> <td style="border: 1px solid black; text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td></tr> </table> </td> <td style="border: 1px solid black; text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td></tr> </table> </td> </tr> </table>				0	0	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	0	0	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9				0	0	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	Years	Months	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td></tr> </table>			0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td></tr> <tr><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td></tr> </table>			0	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9
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38. What type of duty are you on?

- ☐ Sea duty
- ☐ Shore duty
- ☐ Both sea and shore duty
- ☐ Other (e.g., neutral duty, duty under instruction)

39. To what type of ship/activity are you currently assigned? (Select ALL that apply.)

- ☐ Shore or Staff Command
- ☐ Afloat staff
- ☐ Training Command
- ☐ Aviation Squadron (deployed to ships)
- ☐ Aviation Squadron (deployed to shore)
- ☐ Carrier-based Aviation Squadron/Detachment
- ☐ Aircraft Carrier
- ☐ Cruiser
- ☐ Destroyer types (includes frigates)
- ☐ Minecraft
- ☐ Submarine
- ☐ Tender/Repair ship
- ☐ Reserve Unit
- ☐ Service Force ship
- ☐ Amphibious ship
- ☐ Amphibious craft
- ☐ Shore based deployable unit (Seabees, EOD, Sea OpDet, etc.)
- ☐ Other _____

40. In which FLEET are you now homeported?

- ☐ Does not apply
- ☐ 2nd Fleet, Atlantic
- ☐ 3rd Fleet, Pacific
- ☐ 5th Fleet, Persian Gulf
- ☐ 6th Fleet, Mediterranean
- ☐ 7th Fleet, Far East

41. What is the geographical location of your current assignment? If deployed, where is your command homeported?

- ☐ Alaska or Hawaii
- ☐ CONUS (East Coast)
- ☐ CONUS (West Coast)
- ☐ Europe (including Mediterranean)
- ☐ Far East
- ☐ Caribbean
- ☐ Middle East (including African continent)
- ☐ South or Central America

42. During the past 12 months, how many weeks were you deployed/underway?

(1)	(1)
(2)	(2)
(3)	(3)
(4)	(4)
(5)	(5)
(6)	(6)
(7)	(7)
(8)	(8)
(9)	(9)

43. Are you in your first obligation or extension?

- ☐ Yes
- ☐ No

44. Are you in your first obligation? (Officers only)

- ☐ Yes
- ☐ No

45. What is the date you completed this survey?

DATE			
MO.	DAY	YR.	
(1)	(1)	(1)	(1)
(2)	(2)	(2)	(2)
(3)	(3)	(3)	(3)
(4)	(4)	(4)	(4)
(5)	(5)	(5)	(5)
(6)	(6)	(6)	(6)
(7)	(7)	(7)	(7)
(8)	(8)	(8)	(8)
(9)	(9)	(9)	(9)

COMMENTS

Please use the rest of this page and the next to offer comments you may have on any of the Quality of Life Programs or issues addressed in this questionnaire. (Please fill in this circle ☐ if you provide comments.)

Navy-wide
Navy-wide
Navy-wide
Navy-wide

Personnel
Personnel
Personnel
Personnel

Survey 1990
Survey 1991
Survey 1992
Survey 1993
Survey 1994
Survey 1995
Survey 1996
Survey 1997



Chief of Naval Personnel Washington, DC 20370-5000

Navy Personnel Research and Development Center San Diego, CA 92152-7250

PRIVACY ACT STATEMENT

Authority to request this information is granted under Title 5, U.S. Code 301 and Department of the Navy Regulations, Executive Order 9397. License to administer this survey is granted under OPNAV Report Control Symbol 1000-27, which expires on 18 Jul 2000. Personal identifiers will be used to conduct follow-on research.

PURPOSE: The purpose of this questionnaire is to collect data to evaluate existing and proposed Navy personnel policies, procedures, and programs.

ROUTINE USES: The information provided in this questionnaire will be analyzed by the Navy Personnel Research and Development Center. The data files will be maintained by the Navy Personnel Survey System at the Navy Personnel Research and Development Center, where they may be used to determine changing trends in the Navy.

CONFIDENTIALITY: All responses will be held in confidence by the Navy Personnel Research and Development Center. Information you provide will be considered only when statistically combined with the responses of others, and will not be identified with any single individual.

PARTICIPATION: Completion of this questionnaire is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except lack of representation of your views in the final results and outcomes.

Please use the last page of this questionnaire for any comments you wish to make.
Please complete the survey and return it in the envelope provided.

If you have any questions, you may contact:
John Kantor
(619) 553-7651 or DSN 553-7651
FAX: (619) 553-9973
e-mail: kantor@nprdc.navy.mil
Navy Personnel Research and Development Center
Survey Operations Center
53335 Ryne Road
Code 122
San Diego, CA 92152-7250

THANK YOU FOR YOUR TIME AND EFFORT!

IMPORTANT INSTRUCTIONS

- CORRECT MARK:** ●
INCORRECT MARK: ○

	strongly disagree	disagree	neutral	agree	strongly agree
I am a person who is not easily influenced by others	●	○	○	○	○
I am a person who is easily influenced by others	○	○	●	○	○
I am a person who is not easily influenced by others	○	●	○	○	○

BACKGROUND	
PERSONAL	
<p>1. What is your gender?</p> <p><input type="radio"/> Male</p> <p><input type="radio"/> Female</p>	<p>5. What is your religious preference?</p> <p><input type="radio"/> Catholic</p> <p><input type="radio"/> Protestant (Baptist, Methodist, Lutheran, etc.)</p> <p><input type="radio"/> Jewish</p> <p><input type="radio"/> Orthodox churches (Greek, Russian, etc.)</p> <p><input type="radio"/> Muslim</p> <p><input type="radio"/> Buddhist</p> <p><input type="radio"/> Mormon</p> <p><input type="radio"/> Pentecostal</p> <p><input type="radio"/> Other religion not listed</p> <p><input type="radio"/> No religious preference</p>
<p>The answers for Questions 2 and 3 are based on the standard DoD race and ethnic categories. If you are of mixed heritage, please select the racial and ethnic group with which you MOST closely identify.</p>	<p>6. What is your current marital status?</p> <p><input type="radio"/> Single and never married</p> <p><input type="radio"/> Married for the first time</p> <p><input type="radio"/> Remarried, was divorced</p> <p><input type="radio"/> Legally separated or filing for divorce</p> <p><input type="radio"/> Divorced</p> <p><input type="radio"/> Widowed</p>
<p>2. What is your racial background?</p> <p><input type="radio"/> White</p> <p><input type="radio"/> Black/African-American</p> <p><input type="radio"/> Asian/Pacific Islander</p> <p><input type="radio"/> American Indian</p> <p><input type="radio"/> Other</p>	<p>7. What was your marital status when you entered the Navy?</p> <p><input type="radio"/> Single and never married</p> <p><input type="radio"/> Married for the first time</p> <p><input type="radio"/> Remarried, was divorced</p> <p><input type="radio"/> Legally separated or filing for divorce</p> <p><input type="radio"/> Divorced</p> <p><input type="radio"/> Widowed</p>
<p>3. What is your ethnic background?</p> <p><input type="radio"/> Mexican, Chicano, Mexican-American</p> <p><input type="radio"/> Puerto Rican</p> <p><input type="radio"/> Cuban</p> <p><input type="radio"/> Other Spanish/Hispanic</p> <p><input type="radio"/> Japanese</p> <p><input type="radio"/> Chinese</p> <p><input type="radio"/> Korean</p> <p><input type="radio"/> Vietnamese</p> <p><input type="radio"/> Asian Indian</p> <p><input type="radio"/> Filipino</p> <p><input type="radio"/> Pacific Islander (Guamanian, Samoan, etc.)</p> <p><input type="radio"/> Eskimo/Aleut</p> <p><input type="radio"/> None of the above</p>	<p>8. Did you get married this past year (CY96 or CY97)?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No, (skip to Question 12)</p>
<p>4. What is your highest level of education?</p> <p><input type="radio"/> Less than high school completion/no diploma</p> <p><input type="radio"/> Alternate degree/GED/home study/adult school certification</p> <p><input type="radio"/> High school diploma/graduate</p> <p><input type="radio"/> Some college, no degree</p> <p><input type="radio"/> Associate's degree or other 2 year degree</p> <p><input type="radio"/> Bachelor's degree</p> <p><input type="radio"/> Master's degree</p> <p><input type="radio"/> Doctorate or professional degree</p>	<p>9. If yes, who performed the ceremony?</p> <p><input type="radio"/> Civilian clergy</p> <p><input type="radio"/> Navy chaplain</p> <p><input type="radio"/> Civil servant (Justice of the Peace, etc.)</p> <p><input type="radio"/> Other</p>
	<p>10. Did you receive premarital counseling?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>
	<p>11. If yes, from whom did you receive counseling? (Select ALL that apply.)</p> <p><input type="radio"/> Civilian clergy (minister, priest, rabbi, etc.)</p> <p><input type="radio"/> Navy chaplain</p> <p><input type="radio"/> Counselor</p> <p><input type="radio"/> Family member(s)</p> <p><input type="radio"/> Other</p>
	<p>12. Were you divorced in the last year (CY96 or CY97)?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>

If you are **SINGLE, NEVER MARRIED, AND HAVE NO CHILDREN**, fill in this circle ☐ and skip to Question 18.

13. What is your spouse's employment situation? (Mark ALL that apply.)

- ☐ Not currently married
- ☐ Active Duty Military
- ☐ Military Reserve
- ☐ Civil Service
- ☐ Civilian job, private sector
- ☐ Self-employed
- ☐ Retired
- ☐ Not employed, by choice (e.g., student, homemaker)
- ☐ Not employed, but actively job hunting
- ☐ Not employed for other reasons

14. If you have an ex-spouse, what is his/her employment situation? (Mark ALL that apply.)

- ☐ Do not have an ex-spouse
- ☐ Active Duty Military
- ☐ Military Reserve
- ☐ Civil Service
- ☐ Civilian job, private sector
- ☐ Self-employed
- ☐ Retired
- ☐ Not employed, by choice (e.g., student, homemaker)
- ☐ Not employed, but actively job hunting
- ☐ Not employed for other reasons
- ☐ Do not know

15. Is your spouse employed full-time or part-time?

- ☐ Not currently married
- ☐ Spouse is not employed
- ☐ Full-time
- ☐ Part-time

16. Is your ex-spouse employed full-time or part-time?

- ☐ Do not have an ex-spouse
- ☐ Ex-spouse is not employed
- ☐ Full-time
- ☐ Part-time
- ☐ Do not know

17. Your spouse's and/or ex-spouse's combined contribution to your family income, relative to your contribution (excluding children's income) is:

- ☐ None, neither my spouse nor ex-spouse contribute to my family income
- ☐ Half or less than half of my contribution
- ☐ About three-fourths of my contribution
- ☐ About equal to my contribution
- ☐ Greater than my contribution

18. Do you personally have any family members enrolled in DEERS? *Dual military couples, only answer if you have children enrolled under your name. (Select ALL that apply.)*

- ☐ No, I personally have no family members enrolled in DEERS (skip to Question 20)
- ☐ Spouse (non-military)
- ☐ Child(ren) living with me
- ☐ Child(ren) not living with me
- ☐ Child(ren) living part-time with me (i.e., joint custody with ex-spouse)
- ☐ Legal ward(s) living with me
- ☐ Parent(s) or other relative(s)

If you have **NO children, or NO children under 21 years of age living in your household, or NO children under age 24 years of age and enrolled full-time in college**, fill in this circle ☐ and skip to Question 20.

19. How many of your children enrolled in DEERS under the age of 21, or under the age of 24 and enrolled full-time in college, live in your household? *Include children for whom you have joint custody.*

AGE GROUP OF CHILDREN	NUMBER OF CHILDREN IN AGE GROUP				
a. Under 6 weeks	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
b. 6 wks through 12 mos	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
c. 13 through 24 mos	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
d. 25 through 35 mos	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
e. 3 through 5 yrs	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
f. 6 through 9 yrs	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
g. 10 through 12 yrs	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
h. 13 through 15 yrs	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
i. 16 through 20 yrs	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
j. 21 through 24 yrs	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

20. Are you or any of the family members in your household currently receiving assistance from any of the sources listed below? (Select ALL that apply.)

- ☐ No, do not receive any assistance (skip to Question 22)
- ☐ No, qualify for assistance, but currently are not receiving any (skip to Question 22)
- ☐ Food stamps
- ☐ Food Locker
- ☐ SHARE Program
- ☐ Woman Infant Children (WIC) Assistance
- ☐ Don't know if receiving any assistance

21. If you receive some form of assistance, do you draw BAQ/VHA?

- ☐ Yes
- ☐ No

22. Are you accompanied by the family members in your household on your present assignment?

- ☐ Does not apply/no family members
☐ Yes
☐ Temporarily unaccompanied (family members will join me later)
☐ Permanently unaccompanied because it was required for the billet
☐ Permanently unaccompanied because family members were not command sponsored (overseas tour)
☐ Permanently unaccompanied because Household Goods move was not authorized with PCS orders (i.e., BRAC closure, Precomm unit, change of homeport, etc.)
☐ Permanently unaccompanied by choice

Answer Question 23 only if you selected this option. Otherwise, skip to Question 24.

23. Select the top five (5) reasons which BEST describe why you are permanently unaccompanied by family members in your household, and rank them with one (1) being the most important.

	1	2	3	4	5
a. Spouse employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Home ownership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Availability of military family housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Availability of civilian housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Cost of civilian housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Spouse's education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Children's schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Ties to the community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Family members prefer to remain in another location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Costs associated with moving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Your work schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Availability of health care and education services for special needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Availability of activities/facilities for family members/child care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Inadequate time to make moving arrangements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Length of new duty assignment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Personal reasons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

CAREER

24. How long have you been on Active Duty in the Navy? Count the time from the day you were sworn in. (Fill in all columns; i.e., 1 year = 01 and 9 months = 09)

Years	Months
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

25. What is your paygrade?

- | | | |
|---------------------------|----------------------------|------------------------------------|
| <input type="radio"/> E-1 | <input type="radio"/> W-1 | <input type="radio"/> O-1 |
| <input type="radio"/> E-2 | <input type="radio"/> W-2 | <input type="radio"/> O-2 |
| <input type="radio"/> E-3 | <input type="radio"/> W-3 | <input type="radio"/> O-3 |
| <input type="radio"/> E-4 | <input type="radio"/> W-4 | <input type="radio"/> O-4 |
| <input type="radio"/> E-5 | | <input type="radio"/> O-5 |
| <input type="radio"/> E-6 | | <input type="radio"/> O-6 |
| <input type="radio"/> E-7 | <input type="radio"/> O-1E | <input type="radio"/> O-7 or above |
| <input type="radio"/> E-8 | <input type="radio"/> O-2E | |
| <input type="radio"/> E-9 | <input type="radio"/> O-3E | |

26. What is your commissioned designator? (Begin numbering in the LEFT column.)

- ☐ Does not apply/I am enlisted

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

<p>27. If you are a Chief Petty Officer, Petty Officer, or an officially DESIGNATED STRIKER (qualified to wear the striker rating badge), what is your general rating (i.e., AW, ET, CTI, etc.)? <i>Only use your rate, not paygrade, such as AW not AWC. (Begin lettering in the LEFT column.)</i></p> <p> <input type="radio"/> Does not apply/I am an officer <input type="radio"/> Not rated/not designated striker </p> <table border="1"> <tr> <td></td> <td></td> <td></td> </tr> <tr><td>A</td><td>A</td><td>A</td></tr> <tr><td>B</td><td>B</td><td>B</td></tr> <tr><td>C</td><td>C</td><td>C</td></tr> <tr><td>D</td><td>D</td><td>D</td></tr> <tr><td>E</td><td>E</td><td>E</td></tr> <tr><td>F</td><td>F</td><td>F</td></tr> <tr><td>G</td><td>G</td><td>G</td></tr> <tr><td>H</td><td>H</td><td>H</td></tr> <tr><td>I</td><td>I</td><td>I</td></tr> <tr><td>J</td><td>J</td><td>J</td></tr> <tr><td>K</td><td>K</td><td>K</td></tr> <tr><td>L</td><td>L</td><td>L</td></tr> <tr><td>M</td><td>M</td><td>M</td></tr> <tr><td>N</td><td>N</td><td>N</td></tr> <tr><td>O</td><td>O</td><td>O</td></tr> <tr><td>P</td><td>P</td><td>P</td></tr> <tr><td>Q</td><td>Q</td><td>Q</td></tr> <tr><td>R</td><td>R</td><td>R</td></tr> <tr><td>S</td><td>S</td><td>S</td></tr> <tr><td>T</td><td>T</td><td>T</td></tr> <tr><td>U</td><td>U</td><td>U</td></tr> <tr><td>V</td><td>V</td><td>V</td></tr> <tr><td>W</td><td>W</td><td>W</td></tr> <tr><td>X</td><td>X</td><td>X</td></tr> <tr><td>Y</td><td>Y</td><td>Y</td></tr> <tr><td>Z</td><td>Z</td><td>Z</td></tr> </table> <p>28. What is your current billet?</p> <p> <input type="radio"/> Sea duty <input type="radio"/> Shore duty <input type="radio"/> Other (e.g., neutral duty, Duty Under Instruction) </p> <p>29. What is the geographical location of your current assignment? <i>If deployed, where is your command homeported?</i></p> <p> <input type="radio"/> Alaska or Hawaii <input type="radio"/> CONUS (East Coast) <input type="radio"/> CONUS (West Coast) <input type="radio"/> Europe (including Mediterranean) <input type="radio"/> Far East <input type="radio"/> Caribbean <input type="radio"/> Middle East (including African continent) <input type="radio"/> South or Central America </p>				A	A	A	B	B	B	C	C	C	D	D	D	E	E	E	F	F	F	G	G	G	H	H	H	I	I	I	J	J	J	K	K	K	L	L	L	M	M	M	N	N	N	O	O	O	P	P	P	Q	Q	Q	R	R	R	S	S	S	T	T	T	U	U	U	V	V	V	W	W	W	X	X	X	Y	Y	Y	Z	Z	Z	<p>30. In which FLEET are you now homeported?</p> <p> <input type="radio"/> Does not apply <input type="radio"/> 2nd Fleet, Atlantic <input type="radio"/> 3rd Fleet, Pacific <input type="radio"/> 5th Fleet, Persian Gulf <input type="radio"/> 6th Fleet, Mediterranean <input type="radio"/> 7th Fleet, Far East </p> <p>31. To what type of ship/activity are you currently assigned? (If applicable, select ALL that apply.)</p> <p> <input type="radio"/> Shore or Staff Command <input type="radio"/> Afloat staff <input type="radio"/> Training Command <input type="radio"/> Aviation Squadron (deployed to ships) <input type="radio"/> Aviation Squadron (deployed to shore) <input type="radio"/> Carrier-based Aviation Squadron/Detachment <input type="radio"/> Aircraft Carrier <input type="radio"/> Cruiser <input type="radio"/> Destroyer types (includes frigates) <input type="radio"/> Minecraft <input type="radio"/> Submarine <input type="radio"/> Tender/Repair ship <input type="radio"/> Reserve Unit <input type="radio"/> Service Force ship <input type="radio"/> Amphibious ship <input type="radio"/> Amphibious craft <input type="radio"/> Shore based deployable unit (Seabees, EOD, Sea OpDet, etc.) <input type="radio"/> Other </p> <p>32. In which of the following sources do you find most of your general information about the Navy? (Select ONE answer.)</p> <p> <input type="radio"/> Navy produced information sources (your base/command newspaper, Navy/Marine Corps TV News, All Hands magazine, Navy messages, plans of the day/week, morning quarters, Captain's Call, word from your leading petty officer/division officer, other Navy information sources) <input type="radio"/> Externally produced information sources (Navy Times or other Navy focused publications) <input type="radio"/> Local or national newspaper <input type="radio"/> Local or national television </p> <p>33. Where do you find most of your information about Navy personnel policies and programs which affect you? (Select ONE answer.)</p> <p> <input type="radio"/> Navy produced information sources (your base/command newspaper, Navy/Marine Corps TV News, All Hands magazine, Navy messages, plans of the day/week, morning quarters, Captain's Call, word from your leading petty officer/division officer, other Navy information sources) <input type="radio"/> Externally produced information sources (Navy Times or other Navy focused publications) <input type="radio"/> Local or national newspaper <input type="radio"/> Local or national television </p>
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<div> DETAILING AND ASSIGNMENT PROCESS </div> <div> PCS ORDERS </div>	
<p>34. How far in advance of your last Projected Rotation Date (PRD) did you first contact your detailer?</p> <p> <input type="radio"/> 1 to 90 days <input type="radio"/> 91 days to under 6 months <input type="radio"/> 6 months to under 9 months <input type="radio"/> 9 months to under 12 months <input type="radio"/> Does not apply </p> <p>35. How many assignment choices were available to you on your first call to your detailer?</p> <p> <input type="radio"/> Not applicable <input type="radio"/> More than 4 <input type="radio"/> 4 <input type="radio"/> 3 <input type="radio"/> 2 <input type="radio"/> 1 <input type="radio"/> None, told to call back at the next requisition date </p> <p>36. How far in advance of your last PRD did you negotiate your orders?</p> <p> <input type="radio"/> Not applicable <input type="radio"/> 1 to 30 days <input type="radio"/> 31 to 60 days <input type="radio"/> 61 to 90 days <input type="radio"/> 91 days to 6 months <input type="radio"/> More than 6 months </p> <p>37. How far in advance of your last change of station or actual rotation date did you receive your orders?</p> <p> <input type="radio"/> Not applicable <input type="radio"/> 1 to 30 days <input type="radio"/> 31 to 60 days <input type="radio"/> 61 to 90 days <input type="radio"/> 91 days to 6 months <input type="radio"/> More than 6 months <input type="radio"/> Did not receive orders in advance </p>	<p>38. Were your last orders issued early enough to allow you to easily complete preparations for your PCS move?</p> <p> <input type="radio"/> Move not required, new duty station was in same geographic location <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Does not apply </p> <p>39. When choosing your last assignment, what was your primary concern? (Pick the ONE most important reason.)</p> <p> <input type="radio"/> Future promotability <input type="radio"/> Type of duty <input type="radio"/> Geographic location <input type="radio"/> Platform/billet <input type="radio"/> Spouse's collocation <input type="radio"/> Family concerns <input type="radio"/> Geographic stability <input type="radio"/> Other </p> <p>40. How receptive was your detailer to resolving conflicts between your personal desires and the needs of the Navy?</p> <p> <input type="radio"/> Very receptive <input type="radio"/> Receptive <input type="radio"/> Not very receptive <input type="radio"/> Not receptive at all <input type="radio"/> Does not apply </p> <p>41. Do you have Internet access available to you at your current command?</p> <p> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know </p> <p>42. Since the Bureau of Naval Personnel (BUPERS) Home Page came on-line in September 1995, how many times have you used it? (Select ALL that apply.)</p> <p> <input type="radio"/> Never, I did not know it existed <input type="radio"/> Never, but I knew it existed <input type="radio"/> Never, I do not have Internet access at home <input type="radio"/> Never, I do not have Internet access at work <input type="radio"/> A few times, but I did not find it useful <input type="radio"/> A few times, and I was satisfied <input type="radio"/> Frequently, I find it very useful and informative </p>

<p>43. If you have used the BUPERS ACCESS computer bulletin board system (or if someone else operated it for you), please rate the extent to which you AGREE or DISAGREE with each of the following statements?</p> <p><input type="radio"/> I have not used BUPERS ACCESS (skip to Question 44)</p> <div style="text-align: right; margin-bottom: 10px;"> </div> <p>a. The system is easy to use <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. The system gave me the information I needed <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>c. The system made it easier to communicate with my detailer <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>d. The system has reduced the number of calls I make to my detailer <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>44. If you have used the BUPERS Interactive Voice Response (IVR) 1-800-951-NAVY system, please rate the extent to which you AGREE or DISAGREE with each of the following statements?</p> <p><input type="radio"/> I have not used BUPERS IVR (skip to Question 45)</p> <div style="text-align: right; margin-bottom: 10px;"> </div> <p>a. The system is easy to use <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. The system gave me the information I needed <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>c. The system made it easier to communicate with my detailer <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>d. The system has reduced the number of calls I make to my detailer <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>	<p>45. If you have used the Job Advertising and Selection System (JASS), please rate the extent to which you AGREE or DISAGREE with each of the following statements?</p> <p><input type="radio"/> I have not used JASS (skip to Question 46)</p> <div style="text-align: right; margin-bottom: 10px;"> </div> <p>a. The system is easy to use <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. The system gave me the information I needed <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>c. The system made it easier to communicate with my detailer <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>d. The system has reduced the number of calls I make to my detailer <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>46. How effective do you feel each of the following methods is for interacting with your detailer?</p> <p><input type="radio"/> I have not negotiated a set of orders with my detailer (skip to Question 47)</p> <div style="text-align: right; margin-bottom: 10px;"> </div> <p>a. Preference Card/Form <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>b. Enlisted Personnel Action Request (NAVPERS 1306/7) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>c. Letter <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>d. FAX <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>e. Telephone (normal hours) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>f. Telephone (after hours) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>g. Voice Mail <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>h. Electronic Mail <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>i. BUPERS Interactive Voice Response (IVR) 1-800-951-NAVY system <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>j. Job Advertising and Selection System (JASS) <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>k. Personal visit <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>l. Detailer field trip <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>m. BUPERS ACCESS <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>n. Naval message <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p> <p>o. Command Career Counselor/Representative <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/></p>
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<p>47. Would you be willing to extend on sea duty in order to obtain a desired assignment ashore?</p> <p><input type="radio"/> Does not apply/would not extend tour</p> <table border="0"> <tr> <td>1-3 months</td> <td>Yes <input type="radio"/></td> <td>No <input type="radio"/></td> </tr> <tr> <td>4-6 months</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>7-9 months</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>10-12 months</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </table> <p>48. Would you be willing to curtail your shore tour in order to obtain a desired assignment at sea?</p> <p><input type="radio"/> Does not apply/would not curtail tour</p> <table border="0"> <tr> <td>1-3 months</td> <td>Yes <input type="radio"/></td> <td>No <input type="radio"/></td> </tr> <tr> <td>4-6 months</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>7-9 months</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>10-12 months</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>13-18 months</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </table> <p>49. Would you be interested in extending on sea duty for the amount of time listed below beyond your original PRD if your subsequent shore duty was extended the same amount of time?</p> <p><input type="radio"/> Does not apply/would not extend sea duty</p> <table border="0"> <tr> <td>Extend by 1 year</td> <td>Yes <input type="radio"/></td> <td>No <input type="radio"/></td> </tr> <tr> <td>Extend by 2 years</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>Extend by 3 years</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>Extend by 4 years</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </table> <p>50. Would you be interested in extending on sea duty for the amount of time listed below beyond your original PRD if your homeport remained the same?</p> <p><input type="radio"/> Does not apply/would not extend sea duty</p> <table border="0"> <tr> <td>Extend by 1 year</td> <td>Yes <input type="radio"/></td> <td>No <input type="radio"/></td> </tr> <tr> <td>Extend by 2 years</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>Extend by 3 years</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>Extend by 4 years</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </table> <p>51. Would you be interested in extending on sea duty beyond your original PRD if, in addition to current pay provided, a bonus was established to increase sea pay? Indicate the minimum monthly increase to sea pay you would accept to extend for each of the options (a-f).</p> <p><input type="radio"/> Does not apply</p> <p><input type="radio"/> Would not extend for any incentive</p> <table border="1"> <thead> <tr> <th></th> <th>\$100</th> <th>\$200</th> <th>\$300</th> <th>\$400</th> <th>\$500</th> </tr> </thead> <tbody> <tr> <td>a. Extend PRD for 1 year</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>b. Extend PRD for 2 years</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>c. Extend PRD for 3 years</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>d. 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TERA is available only to people with 15 to 19.9 years of service.</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Undecided at this time</p> <p><input type="radio"/> Does not apply</p> <p>53. If a Variable Separation Incentive (VSI) or Special Separation Bonus (SSB) were offered to your rate/designator, would you use it? VSI and SSB are one-time "buy-outs" for people below the fifteen year window.</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Undecided at this time</p> <p><input type="radio"/> Does not apply</p> <p>54. The "Chiefs to Sea" policy came about due to difficulties experienced in filling chief's billets at sea. How has this policy affected your decision to stay in the Navy?</p> <p><input type="radio"/> Does not apply/I am not a Chief Petty Officer</p> <p><input type="radio"/> Will remain in and go to sea if assigned</p> <p><input type="radio"/> Will get out rather than go back to sea</p> <p><input type="radio"/> Undecided at this time</p> <p>55. Would you consider changing rates if it would provide you a better opportunity for retention/ career advancement than exists in your current rate?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Undecided at this time</p> <p><input type="radio"/> Does not apply, I am an E7 or above</p> <p>56. How much do you AGREE or DISAGREE with the following statements?</p> <table border="1"> <thead> <tr> <th></th> <th>Strongly agree</th> <th>Agree</th> <th>Neither agree nor disagree</th> <th>Disagree</th> <th>Strongly disagree</th> </tr> </thead> <tbody> <tr> <td>a. 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HOMEBASING

Homebasing is defined as "a good faith attempt to assign E4-E9 Sailors to the same geographic location for most of their tours."

57. How important is homebasing to you?

- ☐ Does not apply/I am an officer (skip to Question 65)
- ☐ Very important
- ☐ Important
- ☐ Neither important nor unimportant
- ☐ Unimportant
- ☐ Very unimportant

58. Do you think there is a conflict between homebasing and maintaining a promotable career path?

- ☐ Yes
- ☐ No
- ☐ Don't know enough about policy to say

59. If homebasing is implemented as a policy, do you anticipate that your out-of-area tour will be:

- ☐ Accompanied
- ☐ Unaccompanied
- ☐ Undecided/don't know

60. If you are homebased in a Fleet Concentration Area (FCA), what is the minimum time ashore between sea tours you would be willing to accept to remain in your homebase? *The alternative is a three year shore tour away from homebase.*

- ☐ 6 months
- ☐ 12 months
- ☐ 18 months
- ☐ 25 months
- ☐ 30 months

61. If you are homebased in a Fleet Concentration Area (FCA), what is the maximum time you would be willing to spend at sea to remain in your homebase?

- ☐ 36 months
- ☐ 48 months
- ☐ 60 months
- ☐ 72 months
- ☐ 84 months

62. Select five (5) homeports where you would want to spend the majority of your tours, and rank them in order of preference with one (1) being the highest. Do not select an area in which your rating has little chance to serve such as an aviation rating in New London, etc.

	1	2	3	4	5
a. Bangor/Bremerton, WA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Brunswick/Bath, ME	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Camp Pendleton, CA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Corpus Christi/Ingelside/Kingsville, TX	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Earle, NJ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Everett/Whidbey Island/Seattle, WA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Havelock/Cherry Point/Camp Lejeune, NC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Jacksonville/Mayport, FL/Kings Bay, GA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Lemoore, CA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Naples, Italy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. New London/Groton, CT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Norfolk/Portsmouth/Tidewater Area, VA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Pascagoula/Gulfport, MS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Pearl Harbor, HI	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Port Hueneme/Point Mugu, CA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Rota, Spain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. San Diego, CA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Sasebo, Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Tinker AFB/Oklahoma City, OK	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. Yokosuka, Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

63. Select five (5) reasons why you chose the homeports you did in Question 62, and rank them in order of importance with one (1) being the most important.

	1	2	3	4	5
a. Cost of living	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Spouse employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Schools for family members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Medical care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Relatives live close by	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Climate/weather	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Military housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Recreational activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Purchased a home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Availability of civilian housing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Quality of command	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Availability of billet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

64. I would not reenlist if I were transferred to a command in the following locations (select five (5) locations and rank them with one (1) being the least desirable):

	1	2	3	4	5
a. Bangor/Bremerton, WA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Brunswick/Bath, ME	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Camp Pendleton, CA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Corpus Christi/Ingelside/Kingsville, TX	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Earle, NJ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Everett/Whidbey Island/Seattle, WA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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h. Jacksonville/Mayport, FL/Kings Bay, GA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Lemoore, CA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Naples, Italy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. New London/Groton, CT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Norfolk/Portsmouth/Tidewater Area, VA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Pascagoula/Gulfport, MS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Pearl Harbor, HI	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Port Hueneme/Point Mugu, CA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Rota, Spain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. San Diego, CA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Sasebo, Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Tinker AFB/Oklahoma City, OK	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. Yokosuka, Japan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

OVERSEAS TOURS

65. Do you expect to be stationed overseas (OCONUS) during your career in the Navy?

☐ Yes

☐ No

66. If you have been stationed overseas (OCONUS) on PCS orders, please indicate where you were stationed. (Mark ALL that apply.)

☐ I have not been stationed overseas (skip to Question 71)

☐ Europe

☐ Western Pacific/Far East

☐ Middle East

☐ South or Central America

☐ Caribbean

☐ Alaska

☐ Hawaii

67. Did you request your last overseas tour?

- ☐ Yes (skip to Question 69)
- ☐ No

68. If "No," why were you assigned to an overseas tour?

- ☐ Part of the career path for my rate
- ☐ Only choice given by detailer
- ☐ Best option of choices given
- ☐ Other

69. On my last overseas tour, I stayed:

- ☐ Less than full length of orders
- ☐ Full length of orders
- ☐ 1 to less than 3 months beyond PRD
- ☐ 3 to less than 6 months beyond PRD
- ☐ 6 to less than 9 months beyond PRD
- ☐ 9 to less than 12 months beyond PRD
- ☐ 12 or more months beyond PRD

70. How satisfied were you with your overseas tour upon your return to CONUS?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied

Use the last page of the questionnaire to make any comments you wish about the Detailing and Assignment Process, including PCS Orders, Homebasing, and Overseas Tours.

ORGANIZATIONAL CLIMATE	
JOB SATISFACTION	
71. How much do you AGREE or DISAGREE with the following statements?	
	<div> <div>Strongly agree</div> <div>Agree</div> <div>Neither agree nor disagree</div> <div>Disagree</div> <div>Strongly disagree</div> </div>
a.	I am satisfied with the quality of leadership at my command
b.	I am generally satisfied with my current job
c.	In general, I like the work I do in the Navy
d.	I am satisfied with my physical working conditions
e.	I am satisfied with my career development
f.	I receive timely counseling on my career advancement opportunities
g.	I enjoy my career in the Navy
h.	I am glad I chose to join the Navy instead of other alternatives I was considering
i.	I think I am adequately paid for the job I do
j.	The amount I am paid is an important reason for me to stay in the Navy
k.	The amount I would receive as retirement benefits is an important reason for me to stay in the Navy until retirement
l.	I think the pay allowance given to Navy members with dependents relative to that given to members without dependents is fair
72. What are your CURRENT Navy career plans?	
<input type="radio"/> Definitely decided to stay in the Navy at least until eligible to retire <input type="radio"/> Probably will stay in the Navy at least until eligible to retire <input type="radio"/> Don't know if I will stay in the Navy until eligible to retire <input type="radio"/> Probably will not stay in the Navy until eligible to retire <input type="radio"/> Definitely will not stay in the Navy until eligible to retire <input type="radio"/> Eligible to retire now and have decided to leave <input type="radio"/> Eligible to retire now, but have made no decision to leave <input type="radio"/> Eligible to retire now and want to stay <input type="radio"/> Not being allowed to stay until retirement	
73. What were your Navy career plans ONE YEAR AGO?	
<input type="radio"/> Definitely decided to stay in the Navy at least until eligible to retire <input type="radio"/> Probably would stay in the Navy at least until eligible to retire <input type="radio"/> Didn't know if I would stay in the Navy until eligible to retire <input type="radio"/> Probably would not stay in the Navy until eligible to retire <input type="radio"/> Definitely would not stay in the Navy until eligible to retire <input type="radio"/> Was eligible to retire and had decided to leave <input type="radio"/> Was eligible to retire, but had made no decision to leave <input type="radio"/> Was eligible to retire, but wanted to stay <input type="radio"/> Not allowed to stay until retirement <input type="radio"/> I was not in the Navy 12 months ago	
74. Will you be taking a reenlistment action within the next 12 months?	
<input type="radio"/> Does not apply/I am an Officer (skip to Question 78) <input type="radio"/> Yes <input type="radio"/> No	
75. How likely is it that you will reenlist at your next decision point?	
<input type="radio"/> Very likely <input type="radio"/> Likely <input type="radio"/> Undecided <input type="radio"/> Unlikely <input type="radio"/> Very unlikely	

<p>76. What influence did the Selective Reenlistment Bonus (SRB) have on your LAST decision to reenlist?</p> <p> <input type="radio"/> Does not apply/am serving my first enlistment <input type="radio"/> SRB not available in my rate <input type="radio"/> No influence at all <input type="radio"/> Minimal influence <input type="radio"/> Significant influence </p> <p>77. What influence will the Selective Reenlistment Bonus (SRB) have on your NEXT decision to reenlist?</p> <p> <input type="radio"/> Does not apply/not planning to reenlist <input type="radio"/> SRB not available in my rate <input type="radio"/> No influence at all <input type="radio"/> Minimal influence <input type="radio"/> Significant influence </p>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center; font-weight: bold; margin-bottom: 10px;"> PERFORMANCE EVALUATIONS </div> <p>80. Regarding the Performance Evaluation and Counseling System, did counseling for your last reporting period occur at mid-term?</p> <p> <input type="radio"/> Yes <input type="radio"/> No </p> <p>81. Did counseling occur when your last evaluation was done?</p> <p> <input type="radio"/> Yes <input type="radio"/> No </p> <p>82. Were you given an opportunity to submit input to your last evaluation?</p> <p> <input type="radio"/> Yes <input type="radio"/> No </p> <p>83. Who conducted your counseling for your last evaluation?</p> <p> <input type="radio"/> Immediate supervisor <input type="radio"/> Second level supervisor <input type="radio"/> Higher level supervisor <input type="radio"/> Not applicable, no counseling occurred </p> <p>84a. How do you feel about the fairness of the trait grades assigned in your last evaluation?</p> <p> <input type="radio"/> Very fair <input type="radio"/> Fair <input type="radio"/> Neither fair nor unfair <input type="radio"/> Unfair <input type="radio"/> Very unfair </p> <p>84b. How do you feel about the accuracy of the trait grades assigned in your last evaluation?</p> <p> <input type="radio"/> Very accurate <input type="radio"/> Accurate <input type="radio"/> Neither accurate nor inaccurate <input type="radio"/> Inaccurate <input type="radio"/> Very inaccurate </p> <p>85a. How do you feel about the fairness of the promotion recommendation in your last evaluation?</p> <p> <input type="radio"/> Very fair <input type="radio"/> Fair <input type="radio"/> Neither fair nor unfair <input type="radio"/> Unfair <input type="radio"/> Very unfair </p> <p>85b. How do you feel about the accuracy of the promotion recommendation in your last evaluation?</p> <p> <input type="radio"/> Very accurate <input type="radio"/> Accurate <input type="radio"/> Neither accurate nor inaccurate <input type="radio"/> Inaccurate <input type="radio"/> Very inaccurate </p>																																																												
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center; font-weight: bold; margin-bottom: 10px;"> LEADERSHIP </div> <p>78. How SATISFIED or DISSATISFIED are you with the following aspects of leadership quality?</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"></td> <td style="width: 10%; text-align: center;">Very satisfied</td> <td style="width: 10%; text-align: center;">Satisfied</td> <td style="width: 10%; text-align: center;">Dissatisfied</td> <td style="width: 10%; text-align: center;">Very dissatisfied</td> <td style="width: 10%;"></td> </tr> <tr> <td>a. Officer community</td> <td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td></td> </tr> <tr> <td>b. LDO community</td> <td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td></td> </tr> <tr> <td>c. Chiefs' community</td> <td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td></td> </tr> <tr> <td>d. Overall Navy</td> <td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td></td> </tr> </table> <p>79. If you marked Dissatisfied or Very Dissatisfied in the above question, please indicate the MOST important reason why:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;"></td> <td style="width: 10%; text-align: center;">Not applicable</td> <td style="width: 10%; text-align: center;">Incompetence or poor management</td> <td style="width: 10%; text-align: center;">Lack of concern for personnel</td> <td style="width: 10%; text-align: center;">Lack of integrity</td> <td style="width: 10%; text-align: center;">Lack of training</td> </tr> <tr> <td>a. Officer community</td> <td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td> </tr> <tr> <td>b. LDO community</td> <td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td> </tr> <tr> <td>c. Chiefs' community</td> <td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td> </tr> <tr> <td>d. Overall Navy</td> <td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td><td><input type="radio"/></td> </tr> </table>		Very satisfied	Satisfied	Dissatisfied	Very dissatisfied		a. Officer community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		b. LDO community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		c. Chiefs' community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		d. Overall Navy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			Not applicable	Incompetence or poor management	Lack of concern for personnel	Lack of integrity	Lack of training	a. Officer community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	b. LDO community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	c. Chiefs' community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	d. Overall Navy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center; font-weight: bold;"> LEADERSHIP </div>
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86. Based upon your perceptions of how the new fitness report/evaluation system is being implemented at your command, how much do you AGREE or DISAGREE with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a. Mid-term counseling addressed both strengths and weaknesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The new system improves communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. The new system improves teamwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Counseling was done in a timely manner based upon the reporting period	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Fitness/evaluation report was conducted in a timely manner based upon the reporting period	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

87. Has your command provided you with timely guidance regarding your career advancement opportunities or rate change eligibility?

☐ Yes
☐ No

VALUES

88. The Navy Core Values (NCV) are (select ONE option):

☐ Tradition, service, commitment
☐ Integrity, loyalty, courage
☐ Honor, courage, commitment
☐ Truth, fidelity, honor

89. Have you attended Navy Core Values training in the last year (GMT, NR&R, formal school, etc.)?

☐ Yes
☐ No
☐ Not sure

90. How much do you AGREE or DISAGREE with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a. People should always tell the truth even though it may hurt them or other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Sometimes you have to bend or break the rules in order to get the job done	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Responsibility is a key quality of an effective sailor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. It is important that people know their jobs well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. It is important that people do their jobs well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Being a team player is more important than individual accomplishment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Loyalty to the Navy is ultimately more important than loyalty to my peers, subordinates, and superiors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Concern for the well-being of shipmates is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Everyone should serve his or her country in some way or another	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. People should always report others who engage in sexual harassment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. When faced with difficult ethical, moral, and/or life choices, people should rely on their religious/spiritual faith in their decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Navy core values have helped me in my career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Navy core values have helped me when I have been faced with tough moral decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

GENDER INTEGRATION

91. How much do you AGREE or DISAGREE that women have the ability to successfully carry out the duties of their combat roles in the Navy?

☐ Strongly agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Strongly disagree

<p>92. Have you been assigned to a gender integrated, deployable command? (Mark ALL that apply.)</p> <p><input type="radio"/> No, I have never been assigned to a gender integrated ship/shipboard deployed squadron (skip to Question 94)</p> <p><input type="radio"/> Yes, I have previously been assigned to a gender integrated ship/shipboard deployed squadron</p> <p><input type="radio"/> Yes, I am currently assigned to a gender integrated ship/shipboard deployed squadron</p> <p>93. How much do you AGREE or DISAGREE with the following statements?</p> <div style="text-align: right; margin-bottom: 10px;"> </div> <p>a. The Women at Sea habitability alteration provided suitable berthing and head facilities, resulting in equivalent amenities for both genders ○ ○ ○ ○ ○</p> <p>b. Fleet Introduction Training (FIT) improved the integration process ○ ○ ○ ○ ○</p> <p>c. Leadership in my organization is supportive of gender integration ○ ○ ○ ○ ○</p> <div style="border: 1px solid black; border-radius: 15px; text-align: center; padding: 5px; margin: 10px 0;"> HAZING </div> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Hazing is defined as any non-command approved ceremony, ritual, initiation, rite of passage, or unauthorized assumption of authority that is to any degree physically or psychologically harmful, abusive, or demeaning.</p> </div> <p>94. Are you aware of the Navy's policy on hazing?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Not sure</p> <p>95. Are hazing activities occurring at this command?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Not sure</p>	<p>96. While at this command, have you been the target or victim of hazing activities?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No (skip to Question 99)</p> <p>97. Did the hazing occur within the last 12 months?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p>98. What kind of hazing did you experience? (Select ALL that apply.)</p> <p><input type="radio"/> Playing abusive or ridiculous tricks</p> <p><input type="radio"/> Threatening of offering violence or bodily harm</p> <p><input type="radio"/> Striking</p> <p><input type="radio"/> Branding</p> <p><input type="radio"/> Tattooing</p> <p><input type="radio"/> Shaving</p> <p><input type="radio"/> Greasing</p> <p><input type="radio"/> Painting</p> <p><input type="radio"/> "Tacking on"</p> <p><input type="radio"/> "Pinning"</p> <p><input type="radio"/> Damaging or destroying property</p> <p><input type="radio"/> Forcing or requiring the consumption of any food, alcohol, drug, or other substance</p> <p><input type="radio"/> Requiring excessive physical exercise beyond what is required to meet Navy standards</p> <p><input type="radio"/> Sleep deprivation</p> <p><input type="radio"/> Exposure to the elements</p> <p><input type="radio"/> Any activity which could result in extreme embarrassment</p> <p><input type="radio"/> Exclusion from social contact or shunning</p> <p>99. Have you participated in hazing activities?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <div style="border: 1px solid black; border-radius: 15px; text-align: center; padding: 5px; margin: 10px 0;"> EXTREMIST/HATE GROUP ISSUES </div> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Extremist/hate group organizations support supremacist causes; attempt to create illegal discrimination based on race, creed, color, gender, religion, or national origin; and advocate the use of force or violence, or otherwise engage in efforts to deprive individuals of their civil rights.</p> </div> <p>100. Is extremist/hate group activity occurring at this command?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Not sure</p>
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<p>101. Extremist/hate group activity is not tolerated at this command.</p> <p><input type="radio"/> True</p> <p><input type="radio"/> False</p> <p>102. Are you aware of the Navy's policy on participation in extremist/hate group activity?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p>103. Have you seen extremist/hate group material (e.g., fliers, announcements, tattoos) at this command?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> Not sure</p> <p>104. While at this command, have you been asked by another person to participate in extremist/hate group activity?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p>105. While at this command, have you been the target or victim of extremist/hate group activity?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p>106. Do you know anyone assigned to this command who is a member of an extremist/hate group?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">VOLUNTARY EDUCATION (VOLED)</div> <p>107. Which of the following statements indicate how you would prefer to take a college course? You may choose more than one, but rank them in order of preference with one (1) being the most preferred.</p> <p><input type="radio"/> I am not interested in taking college courses (skip to Question 109)</p> <table border="1"> <thead> <tr> <th></th> <th>One (1)</th> <th>Two (2)</th> <th>Three (3)</th> <th>Four (4)</th> <th>Five (5)</th> <th>Six (6)</th> </tr> </thead> <tbody> <tr> <td>a. 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Select three (3) and rank them in order of preference with one (1) being the most important.</p> <p><input type="radio"/> I am not taking college courses right now (skip to Question 109)</p> <table border="1"> <thead> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>a. To improve my chances for promotion</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>b. To prepare for when I leave the Navy</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>c. To learn something better</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>d. To be able to do my Navy job</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>e. 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109. Which one (1) phrase best describes the level of support for VOLED in your command? (Select ONE answer.)

- ☐ Command supports VOLED as long as it does not interfere with work
- ☐ Command supports my educational goals and goes out of its way to let me adapt my work schedule to school schedules
- ☐ Do it when you're ashore
- ☐ Your Navy job comes first; fit education in when you can, on your own time
- ☐ Command pushes education
- ☐ Do it at your next command

110. How many years do you expect to be in the Navy? (Total number of years.)

- ☐ 3-6 years
- ☐ 7-9 years
- ☐ 10-15 years
- ☐ 16-20 years
- ☐ Over 20 years
- ☐ Undecided

111. What is the highest level of education you would like to achieve before you leave the Navy? (Select ONE answer.)

- ☐ Associate's degree
- ☐ Technical certificate
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctorate or professional degree
- ☐ Not interested in pursuing a degree/certificate
- ☐ Have completed all degrees I intend to

Use the last page of the questionnaire to make any comments you wish about Organizational Climate, including Job Satisfaction, Leadership, Performance Evaluations, Values, Gender Integration, Hazing, Extremist/Hate Group Issues, and VOLED.

HEALTH ISSUES

NAVY DRUG/ALCOHOL AND OBESITY PROGRAM POLICIES

112. Attendance at Alcohol and Drug Abuse for Managers/Supervisors (ADAMS) for E-6 and above personnel is encouraged at my command.

- ☐ ADAMS is not available at my command
- ☐ Don't know
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

113. How much do you AGREE or DISAGREE with the following statements on the Navy's drug/alcohol and obesity program policies?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Existing regulations on the use and abuse of alcohol should be more strictly enforced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Penalties for the abuse of alcohol at my command are sufficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. At my command, the Navy's policies on alcohol use/abuse are applied fairly across all paygrades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. At my command, the difference between alcohol use and alcohol abuse is clearly understood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Treatment for problems related to alcoholism and alcohol abuse has a negative effect on a member's Navy career (e.g., makes it more difficult to obtain choice assignments, receive promotions, and be retained in the Navy)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. There is immediate intervention and referral to treatment for those with alcohol problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Alcohol abuse awareness and deglamorization/education efforts are important at my command	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>113. cont'd How much do you AGREE or DISAGREE with the following statements on the Navy's drug/alcohol and obesity program policies?</p> <p>h. The Navy needs to improve its alcohol abuse prevention efforts</p> <p>i. I have access to enough nutrition information to make healthy food choices</p> <p>j. There is immediate intervention and referral to treatment for those with obesity/compulsive overeating problems</p> <p>114. I have attended alcohol- and/or drug-related General Military Training (GMT) or alcohol-awareness training in the last six months at this command.</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> I have been at this command less than 6 months</p> <p>115. I have attended the 4-hour alcohol-awareness course given by command DAPAs.</p> <p><input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Plan to attend</p> <p>116. I am familiar with the Navy Right Spirit campaign to reduce alcohol abuse and deglamorize alcohol use.</p> <p><input type="radio"/> Vary familiar <input type="radio"/> Somewhat familiar <input type="radio"/> Heard about it, but don't know what it is <input type="radio"/> Never heard of it</p>	<p>117. How much do you AGREE or DISAGREE with the following statements about drug/alcohol use/abuse in the Navy?</p> <p>a. I know the Navy's policy about alcohol abuse</p> <p>b. I know the Navy's policy about drug abuse</p> <p>c. I know my command Drug and Alcohol Program Advisor (DAPA) and feel free to contact him/her for assistance</p> <p>d. I feel free to report an alcohol-related incident which I have witnessed to my chain of command without fear of reprisal</p> <p>e. I feel free to report a drug-related incident which I have witnessed to my chain of command without fear of reprisal</p> <p>f. I feel free to request support from my chain of command if I have a problem with alcohol</p> <p>g. I feel free to request support from my chain of command if I have a problem with drugs</p> <p>h. This command's DAPA is proactive in educating the command about alcohol</p> <p>i. This command's DAPA is proactive in educating the command about drugs</p> <p>j. The command DAPA is supportive of anyone with an alcohol problem</p> <p>k. The command DAPA is supportive of anyone with a drug problem</p> <p>l. This command deglamorizes alcohol (e.g., does not promote alcohol at command functions)</p> <p>m. Alcohol-related incidents are promptly addressed by leadership in my chain of command</p> <p>n. Drug-related incidents are promptly addressed by leadership in my chain of command</p> <p>o. The leadership in my command sets the proper example regarding responsible alcohol use</p> <p>p. My command always provides alternatives to alcohol at command events</p>
--	---

HEALTH PROMOTION PROGRAMS

118. How much do you AGREE or DISAGREE with the following statements about health promotion programs?

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
a. A tobacco user can get assistance in quitting tobacco use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. My command enforces the restricted-smoking policy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. My command restricts the use of smokeless tobacco	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Physical Training periods on duty time are supported	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. The use of healthy stress management/stress reduction skills is encouraged at my command	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Programs to teach coping and stress management skills are available at my command	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Individuals believed to be suicidal can get counseling at my command	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. I would exercise more if time were provided in my work schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

119. Rank the reasons for you to stop using tobacco products. For the MOST important reason, fill in the circle under the "1". For the LEAST important reason, fill in the circle under the "6", etc.

- ☐ Does not apply/do not use tobacco products
☐ I am not trying/do not plan to stop using tobacco products

	1	2	3	4	5	6
a. Expense of tobacco products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Peer pressure/social pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Detriment to my health/my family's health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Inconvenience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. My command is a smoke-free/tobacco-free command	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Personal desire to quit smoking/using tobacco products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

120. Rank the reasons you exercise on a regular basis (at least three times a week). For the MOST important reason, fill in the circle under the "1". For the LEAST important reason, fill in the circle under the "8", etc.

- ☐ I do not exercise on a regular basis

	1	2	3	4	5	6	7	8
a. To pass/do well on the PRT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. To control my weight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. To become/remain fit and healthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. To reduce stress/make me feel better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. For the enjoyment of participating in sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Regular exercise is required at my command	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. To present a professional military appearance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. To get a good grade on PFT and consequently on FITREP/EVAL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

121. How SATISFIED or DISSATISFIED are you with the overall quality of Navy-sponsored fitness facilities at your base?

- ☐ I do not use Navy-sponsored fitness facilities

	Very satisfied	Satisfied	Disatisfied	Very dissatisfied
a. Cleanliness/maintenance (facility and equipment)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Variety of strength equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Variety of cardio-vascular equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Crowding/capacity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Hours of operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Staff knowledge and customer service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ACCESS TO MEDICAL FACILITIES

122a. When considering your **PERSONAL** use of medical facilities, how much do you **AGREE** or **DISAGREE** with the following statements about access to medical facilities?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a. Medical-care facilities are easily accessible at my command	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The accessibility of medical-care facilities has had a positive impact on my readiness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I am satisfied with the quality of medical services I receive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

122b. If you answered **Strongly disagree** or **Disagree** to part "a" of the previous question regarding your access to medical-care facilities, what reasons contribute to the lack of accessibility? (Select **ALL** that apply.)

- ☐ Not applicable
- ☐ Medical facilities are not available at my command/I must commute
- ☐ Medical facilities are not open at convenient times for me
- ☐ Medical facilities are too overcrowded to allow me convenient access
- ☐ Other

123. The approximate number of times you visit medical-care centers per year is:

- ☐ Does not apply
- ☐ 0
- ☐ 1-4
- ☐ 5-10
- ☐ 11-20
- ☐ 21-30
- ☐ More than 30

124a. When considering your **FAMILY'S** use of medical facilities, how much do you **AGREE** or **DISAGREE** with the following statements about access to medical facilities?

- ☐ Not applicable, I do not have family members (skip to Question 126)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
a. Medical-care facilities are easily accessible to my family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The accessibility of medical-care facilities for my family has had a positive impact on my readiness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I am satisfied with the quality of medical services my family receives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

124b. If you answered **Strongly disagree** or **Disagree** to part "a" of the previous question regarding your family's access to medical-care facilities, what reasons contribute to the lack of accessibility? (Select **ALL** that apply.)

- ☐ Not applicable
- ☐ Medical facilities are not available locally/ my family must commute
- ☐ Medical facilities are not open at convenient times for my family
- ☐ Medical facilities are too overcrowded to allow my family convenient access
- ☐ Other

125. The approximate number of times your family members visit medical-care centers per year is:

- ☐ Does not apply
- ☐ 0
- ☐ 1-4
- ☐ 5-10
- ☐ 11-20
- ☐ 21-30
- ☐ More than 30

126. How frequently do your medical-care providers refer you and/or your family members to other health care providers?

- ☐ Never
- ☐ Seldom
- ☐ Often
- ☐ Depends on the nature of the visit

LEGAL ASSISTANCE SERVICES

127. If you have used Legal Assistance Services at your present command, please rate their quality.

- ☐ Very good
- ☐ Good
- ☐ Average
- ☐ Poor
- ☐ Very poor
- ☐ Never heard of program
- ☐ Not used/no experience

If you marked "Not used/no experience", indicate the most important reason why you have not used the service:

- ☐ Don't need service
- ☐ Prefer off-base alternative
- ☐ Not informed of service
- ☐ Not accessible
- ☐ Not available
- ☐ Other

128. How many times have you or your family used Legal Assistance Services in the last 24 months?

- ☐ 0
- ☐ 1 (skip to Question 130)
- ☐ 2 (skip to Question 130)
- ☐ 3 (skip to Question 130)
- ☐ 4 or more (skip to Question 130)

129. If you or your family did not use Legal Assistance Services in the past 24 months, indicate the MOST important reason why you did not use the program/service:

- ☐ I did not need legal services
- ☐ The Navy doesn't handle my kind of case
- ☐ I needed an attorney to go into civilian court
- ☐ I'm not satisfied with the quality of service
- ☐ I didn't know I could get legal assistance
- ☐ Other
- ☐ The services were not accessible nor available

If you marked "The services were not accessible nor available", what reasons contributed to the lack of accessibility or availability? (Select ALL that apply.)

- ☐ Services were not available at convenient times
- ☐ Services were not available at convenient locations
- ☐ Appointments were already booked/scheduled and did not allow for convenient access
- ☐ Other

130. If you or your family used Legal Assistance Services in the last 24 months, how much do you AGREE or DISAGREE with the following statements?

- ☐ I/we have not used legal services in the last 24 months

- | | Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree |
|---|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| a. I am satisfied that I got good advice from my attorney. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. I am satisfied with the knowledge level and customer service attitude of the non-attorney staff. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. The office hours for Legal Assistance Services at my current station are adequate. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. The legal assistance office at my current duty station is easily accessible. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. The length of time that I had to wait to get an appointment to see an attorney was reasonable. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

131. Which of these Legal Assistance Services have you or your family used in the last 24 months? (Select ALL that apply.)

- ☐ Have not used services in the last 24 months
- ☐ Wills/Estate Planning
- ☐ SGLI (Servicemen's Group Life Insurance) Counseling
- ☐ Separation/Divorce
- ☐ Child Support/Custody
- ☐ Tax Assistance/Preparation
- ☐ Landlord-Tenant/Real Estate
- ☐ Financial Counseling/Bankruptcy
- ☐ Consumer Affairs/Contract Disputes
- ☐ Adoption/Name Change
- ☐ Notary Public
- ☐ Power of Attorney
- ☐ Other

132. How often have personal legal matters impacted on your readiness/job performance?

- ☐ Very often
- ☐ Often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

133. In what way do personal legal matters interfere with your performance? (Select the MOST important answer.)

- ☐ Does not apply/do not interfere
- ☐ Distractions while on duty
- ☐ Require me to take time off from work
- ☐ Creditors or other people have complained to my chain of command
- ☐ Raises my general stress level/anxiety

PERSONNEL SUPPORT DETACHMENT (PSD) AND TRANSPORTATION	
134. How would you evaluate each of the following?	
	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Very good</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Good</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Fair</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Poor</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Very poor</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Does not apply/have not used</div> </div>
a. Your experience with your servicing PSD	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
b. The interaction between your command Pay/Personnel Administrative Support System (PASS) Liaison Representative (PLR) and the PSD	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
c. On ship, your Personnel/Disbursing Office	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
135. The transportation support provided by the Navy Passenger Transportation Office (NAVPTO) is responsive to my needs. <input type="radio"/> Does not apply/have not used NAVPTO <input type="radio"/> Strongly agree <input type="radio"/> Agree <input type="radio"/> Neither agree nor disagree <input type="radio"/> Disagree <input type="radio"/> Strongly disagree	
136. My TAD/TDY travel claim(s) was processed in a timely manner. <input type="radio"/> Strongly agree <input type="radio"/> Agree <input type="radio"/> Neither agree nor disagree <input type="radio"/> Disagree <input type="radio"/> Strongly disagree <input type="radio"/> Does not apply/have not filed a claim this year	
137. I was able to obtain a military ID card for myself and/or my family members at a convenient time and place. <input type="radio"/> Strongly agree <input type="radio"/> Agree <input type="radio"/> Neither agree nor disagree <input type="radio"/> Disagree <input type="radio"/> Strongly disagree <input type="radio"/> Not applicable	
Comments	
Use the space below to make any comments you wish about ANY of the topics addressed in this survey. (Please label your comments by section name or question number.)	
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	
<div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;"> <p>Thank you for completing this survey! Please place it in the envelope provided and mail it as soon as possible.</p> </div>	

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NAVY RETENTION/SEPARATION QUESTIONNAIRE

1. SITUATION

☐ VOLUNTARY SEPARATION

☐ INVOLUNTARY SEPARATION

☐ EXTENDING

☐ REENLISTING

☐ PCS TRANSFER

2. EDUCATION

☐ GED

☐ HIGH SCHOOL

☐ ASSOCIATES

☐ BACHELORS

☐ MASTERS

☐ DOCTORATE

3. ETHNIC GROUP

☐ WHITE

☐ BLACK

☐ AMER. INDIAN

☐ HISPANIC

☐ ASIAN

☐ OTHER

4. SEX

☐ MALE

☐ FEMALE

5. MARITAL STATUS

☐ SINGLE

☐ MARRIED

☐ DIVORCED

☐ OTHER

6. LENGTH OF SERVICE (NUMBER OF YEARS)

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

7. NUMBER OF DEPENDENTS

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5+

8. PAYGRADE

☐ OFFICER

☐ WARRANT

☐ ENLISTED

☐ 1 E/O

☐ 2 E/W/O

☐ 3 E/W/O

☐ 4 E/W/O

☐ 5 E/O

☐ 6 E/O

☐ 7 E/O

☐ 8 E/O

☐ 9 E/O

9. SPOUSE IS:

☐ WORKING

☐ IN SCHOOL

☐ OTHER

10. UNIT ID CODE

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

11. OFFICER ONLY DESIGNATOR

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

12. PSD UNIT ID CODE

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

FOR PSD USE ONLY

13. ENLISTED ONLY NUMBERS OF TIME REENLISTED

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

☐ 6

☐ 7+

14. RATING

A	A	A	A	A	A
B	B	B	B	B	B
C	C	C	C	C	C
D	D	D	D	D	D
E	E	E	E	E	E
F	F	F	F	F	F
G	G	G	G	G	G
H	H	H	H	H	H
I	I	I	I	I	I
J	J	J	J	J	J
K	K	K	K	K	K
L	L	L	L	L	L
M	M	M	M	M	M
N	N	N	N	N	N
O	O	O	O	O	O
P	P	P	P	P	P
Q	Q	Q	Q	Q	Q
R	R	R	R	R	R
S	S	S	S	S	S
T	T	T	T	T	T
U	U	U	U	U	U
V	V	V	V	V	V
W	W	W	W	W	W
X	X	X	X	X	X
Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z

INSTRUCTIONS
YOUR SINCERE RESPONSES TO THE FOLLOWING QUESTIONS ARE NEEDED TO HELP IMPROVE DECISIONS AFFECTING NAVY PERSONNEL.

USE NO. 2 PENCIL ONLY

- Do not use ink or ballpoint pens.
- Blacken the bubble completely.
- Make no stray marks.
- Erase completely any response you wish to change.

A. Based on your Naval experience, rate your satisfaction with the following items.

	Very Satisfied	Satisfied	Un-Satisfied	Very Un-Satisfied	Not Applicable
1. Amount of respect from superiors.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Level of job fulfillment/challenge.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Amount of enjoyment from my job.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Amount of regulations & discipline.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Quality of leadership & management.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Number of quick response tasks.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Level of recognition for my accomplishments.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Length of working hours.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Geographic location of jobs.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Amount of paperwork.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Amount of personnel available to do the job.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Level of competence of supervisors.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Level of competence of co-workers.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Quality & amount of equipment.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Living conditions at sea/overseas.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Amount of sea duty.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Quality of government housing.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Quality of Navy life.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Spouse career opportunities.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Number of PCS relocations.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Quality of family medical care.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Dependent facilities/schools.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Quality of family service centers.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Amount of pay (basic).....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Special pay (such as bonuses).....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Retirement benefits.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Level of educational benefits.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Fairness of married vs single pay.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Quality of medical and dental care.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Compensation for PCS moves.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. Amount of job security.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Quality of commissary/exchanges.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. Support & recreational services.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. Overall quality of Navy life.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Availability of housing.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. Quality of Navy housing.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. Amount of family separation.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. Availability of dependent medical and dental care.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. Promotion/advancement opportunities.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. Access to education/training.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. Assignment to job offering technical/professional development.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. Use of my skills & training on jobs.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. Assignment to leadership jobs.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. Control over my job assignments.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. Level of fairness in how my performance is evaluated.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B. Considering all the reasons listed above in section A, which one makes (or made) you think about leaving the Navy the most?

First digit 0 1 2 3 4

Second digit 0 1 2 3 4 5 6 7 8 9

DEPARTMENT OF THE NAVY
Office of the Chief of Naval Operations
Washington, DC 20350-2000

OPNAVINST 1040.8D
Pers-23
5 November 1992

OPNAV INSTRUCTION 1040.8D

From: Chief of Naval Operations
To: All Ships, and Stations (less Marine Corps field addressees not having Navy personnel attached)

Subj: NAVY RETENTION/SEPARATION QUESTIONNAIRE

Ref: (a) Title 5, USC 301 (NOTAL)
(b) MILPERSMAN 3640476, Paragraph 4

1. Purpose. To establish procedures and guidelines for completion of the Navy Retention/Separation Questionnaire.

2. Cancellation. OPNAVINST 1040.8C.

3. Information. The questionnaire provides information for statistical analysis to improve and develop personnel related policies and initiatives. A service member's completed form will not initiate administrative action or become part of the service member's record.

4. Action. Under the authority of reference (a), request personnel complete the Navy Retention/Separation Questionnaire according to the following procedures. Since responses to questionnaires assist in the formulation of future policy and lend support in current initiatives affecting naval service members, commanding officers will ensure maximum participation.

a. Enlisted Personnel

(1) Each command's reenlistment check-in list or separation check-out list will include the opportunity to complete a Navy Retention/ Separation Questionnaire. A service member, upon reenlistment or return to active duty, will complete a questionnaire if desired. The command reenlisting the individual will administer the questionnaire. Navy veterans (NAVETS) will complete their questionnaires at the Recruit Training Centers' NAVET indoctrination course.

(2) The Navy Retention/Separation Questionnaire is composed of 14 sections on the front page and 46 questions on the back page. The reenlisting service member will complete Sections 1 through 10, 13 and 14. The service member's parent command will complete Section 12. Section 11 will be left blank. The service member will fill out the back page only if desired. Counsel the service member that responses to the questionnaire lead to improvements in personnel policies and programs.

b. Officer Personnel

(1) Each command's check-in list or separation check-out list will include the opportunity to complete a Navy Retention/ Separation Questionnaire. All officers complete the questionnaire as part of the execution of Permanent Change of Station (PCS) or separation from active duty. These procedures do not apply to officers ordered to a student status.

(2) The Navy Retention/Separation Questionnaire is composed of 14 Sections on the front page and 46 questions on the back page. Officers will complete Sections 1 through 11, 13 and 14. The officer's parent command will complete Section 12. The officer will complete the back page only if desired. Counsel the officer that responses to the questionnaire lead to improvements in personnel policies and programs.

c. Parent commands are responsible for completing the questionnaire. The Command Career Counselor, where assigned, will administer the questionnaire to enlisted personnel. The Administrative Officer will administer the questionnaire to officers and to enlisted personnel in the absence of a Command Career Counselor. Personnel Support Detachments will assume responsibility for administering questionnaires to reenlisting/separating personnel transferred to activities designated per reference (b).

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d. Parent commands are responsible for ensuring that correct procedures for completing the questionnaires are followed. That includes submitting a questionnaire with information on the front page for personnel declining to voluntarily participate. Use a number 2 pencil or softer lead to thoroughly darken all circles marked. Ensure that all stray marks are completely erased. Since forms are electronically scanned, use only questionnaires obtained through the supply system. Do not use mimeographed or xerox-type copies. Do not fold, staple or mutilate the forms. Mail completed questionnaires protectively to:

Bureau of Naval Personnel Detachment
Navy Occupational Development and
Analysis Center (Code 20)
Building 150
Washington Navy Yard (Anacostia)
Washington, DC 20374

5. Form. The Navy Retention/Separation Questionnaire, OPNAV 1910/5 (1-90), stock number 0107-LF-008-7800, may be obtained through normal supply channels per NAVSUP P2002.

6. Report. The reporting requirement contained in paragraph 4 is exempt from reports control by SECNAVINST 5214.2B.

S. F. GALLO
Assistant Deputy Chief of Naval Operations
(Manpower, Personnel and Training)

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ALL OFFICERS REASONS FOR LEAVING THE NAVY, FISCAL YEAR 1997/QTR4

Description	FYTD rank	Item	No. resp.	PCT	Qtr1 rank	Qtr2 rank	Qtr3 rank	Qtr4 rank
AMT OF FAMILY SEPARAT	1	37	368	17.53	1	1	1	1
PROM AND ADVANCE OPPORTUN	2	39	202	9.62	2	2	4	4
PAY (BASIC)	3	24	165	7.86	4	3	2	2
QUAL OF LEADERSHIP/MGMT	4	5	145	6.91	3	4	10	3
FAIRNESS IN PERFORM EVAL	5	45	110	5.24	6	5	5	7
ENJOYMENT FROM JOB	6	3	93	4.43	5	9	3	6
CONTROL OVER JOB ASGNMN	7	44	84	4.00	7	7	7	8
JOB FULFILLMENT/CHALLENGE	8	2	78	3.72	9	11	6	5
NUM OF PCS RELOCATIONS	9	20	74	3.53	12	6	16	10
QUAL OF NAVY LIFE	10	18	66	3.14	11	10	11	9
AMOUNT OF JOB SECURITY	11	31	64	3.05	8	12	9	11
RETIREMENT BENEFITS	12	26	53	2.53	14	8	17	15
LENGTH OF WORKING HOURS	13	8	50	2.38	16	17	15	12
AMOUNT OF SEA DUTY	14	16	49	2.33	19	16	8	13
COMPETENCE OF SUPERVIS	15	12	48	2.29	10	15	14	14
GEOGRAPHIC LOC OF JOBS	16	9	37	1.76	17	18	23	16
RECOG FOR ACCOMPLISH	17	7	36	1.72	13	14	22	24
AMT PERS AVL TO DO JOB	18	11	36	1.72	18	13	25	19
SPECIAL PAYS (BONUS)	19	25	34	1.62	26	20	12	18
USE OF SKL/TRNG ON JOB	20	42	29	1.38	22	27	13	20

ALL OFFICERS REASONS FOR LEAVING THE NAVY, FISCAL YEAR 1997/QTR4—Continued

Description	FYTD rank	Item	No. resp.	PCT	Qtr1 rank	Qtr2 rank	Qtr3 rank	Qtr4 rank
SPOUSE CAREER OPPORTUN	21	19	27	1.29	28	22	24	17
AMOUNT OF PAPERWORK	22	10	26	1.24	31	19	20	21
RESPECT FROM SUPERIORS	23	1	25	1.19	15	25	18	29
QUAL AND AMOUNT EQUIP	24	14	22	1.05	24	21	27	25
QUAL OF FAM MED CARE	25	21	20	.95	25	26	29	26
AVL OF DEP MED/DEN CARE	26	38	20	.95	21	29	43	22
ASGN TO JOB W/TECH,PROF	27	41	20	.95	29	24	33	28
NUM OF QUICK RESP TASKS	28	6	18	.86	23	31	19	23
REGULATIONS AND DISCIPLIN	29	4	17	.81	20	28	21	31
COMPENS FOR PCS MOVES	30	30	15	.71	36	23	30	33
ASGNMNT TO LDRSHIP JOBS	31	43	13	.62	30	30	34	34
ACCESS TO EDUC/TRNG	32	40	12	.57	37	35	32	27
LIVING COND SEA AND OSEA	33	15	11	.52	27	33	35	30
QUAL OF GOVT HOUSING	34	17	7	.33	32	34	28	37
DEPENDENT FACIL/SCHOOLS	35	22	5	.24	34	41	36	32
MARRIED VS SINGLE PAY	36	28	5	.24	33	37	39	38
QUAL OF MED/DEN CARE	37	29	5	.24	35	32	40	41
COMPETENCE OF COWORKERS	38	13	4	.19	38	36	26	36
AVAIL OF HOUSING	39	35	4	.19	43	40	31	35
EDUCATION BENEFITS	40	27	1	.05	40	38	38	40
QUAL OF COMMISSARY/EXCH	41	32	1	.05	41	39	41	42
QUAL OF FAMILY SVC CEN	42	23			39	42	37	39
SUPPORT AND RECREAT SVCS	43	33			42	43	42	43
TOTAL			2,099	100.00				

ALL ENLISTED REASONS FOR LEAVING THE NAVY, FISCAL YEAR 1997/QTR4

Description	FYTD rank	Item	No. resp.	PCT	Qtr1 rank	Qtr2 rank	Qtr3 rank	Qtr4 rank
PROM AND ADVANCE OPPORTUN	1	39	1,547	11.11	1	2	3	1
AMT OF FAMILY SEPARAT	2	37	1,525	10.95	2	1	2	2
PAY (BASIC)	3	24	1,474	10.58	3	3	1	3
QUAL OF LEADERSHIP/MGMT	4	5	1,113	7.99	4	4	5	4
QUAL OF NAVY LIFE	5	18	927	6.66	5	5	4	5
FAIRNESS IN PERFORM EVAL	6	45	688	4.94	8	6	8	6
ENJOYMENT FROM JOB	7	3	643	4.62	7	7	7	7
RESPECT FROM SUPERIORS	8	1	591	4.24	10	8	6	8
AMOUNT OF SEA DUTY	9	16	585	4.20	6	9	9	9
RECOG FOR ACCOMPLISH	10	7	501	3.60	9	11	10	11
COMPETENCE OF SUPERVIS	11	12	477	3.43	11	10	11	12
RETIREMENT BENEFITS	12	26	451	3.24	12	13	12	10
JOB FULFILLMENT/CHALLENGE	13	2	366	2.63	13	12	14	13
LIVING COND SEA AND OSEA	14	15	270	1.94	17	16	13	14
GEOGRAPHIC LOC OF JOBS	15	9	259	1.86	14	14	17	16
REGULATIONS AND DISCIPLIN	16	4	251	1.80	15	15	15	15
AMT PERS AVL TO DO JOB	17	11	190	1.36	16	18	18	17
LENGTH OF WORKING HOURS	18	8	174	1.25	20	20	16	19
MARRIED VS SINGLE PAY	19	28	169	1.21	19	17	22	21
CONTROL OVER JOB ASGNMNT	20	44	150	1.08	22	24	19	18
ACCESS TO EDUC/TRNG	21	40	141	1.01	21	19	28	22
USE OF SKL/TRNG ON JOB	22	42	134	.96	18	21	21	24
COMPETENCE OF COWORKERS	23	13	125	.90	26	27	20	20
ASGN TO JOB W/TECH,PROF	24	41	119	.85	27	22	23	23
NUM OF PCS RELOCATIONS	25	20	106	.76	23	23	24	25
QUAL OF MED/DEN CARE	26	29	91	.65	24	26	31	28
AMOUNT OF JOB SECURITY	27	31	82	.59	31	28	25	30
SPECIAL PAYS (BONUS)	28	25	81	.58	30	25	30	32
QUAL OF FAM MED CARE	29	21	80	.57	28	30	29	27
QUAL AND AMOUNT EQUIP	30	14	75	.54	32	29	27	29
AVL OF DEP MED/DEN CARE	31	38	74	.53	25	33	32	31
EDUCATION BENEFITS	32	27	71	.51	41	32	26	26

ALL ENLISTED REASONS FOR LEAVING THE NAVY, FISCAL YEAR 1997/QTR4—Continued

Description	FYTD rank	Item	No. resp.	PCT	Qtr1 rank	Qtr2 rank	Qtr3 rank	Qtr4 rank
AMOUNT OF PAPERWORK	33	10	53	.38	29	35	33	36
DEPENDENT FACIL/SCHOOLS	34	22	49	.35	36	31	39	35
SPOUSE CAREER OPPORTUN	35	19	47	.34	35	34	35	34
QUAL OF FAMILY SVC CEN	36	23	43	.31	39	37	36	33
AVAIL OF HOUSING	37	35	39	.28	42	36	37	37
NUM OF QUICK RESP TASKS	38	6	37	.27	34	38	34	39
QUAL OF GOVT HOUSING	39	17	33	.24	33	39	38	40
SUPPORT AND RECREAT SVCS	40	33	34	.24	38	40	41	38
ASGNMNT TO LDRSHIP JOBS	41	43	27	.19	40	41	40	41
QUAL OF COMMISSARY/EXCH	42	32	18	.13	37	43	42	43
COMPENS FOR PCS MOVES	43	30	17	.12	43	42	43	42
TOTAL			13,927	100.00				

The perception of Marine Corps leadership is an important aspect of the Climate Battery Surveys. The very first question asks “What is the main reason you have decided to stay on (or separate from) active duty Marine Corps service? Rather than just choose from among distractors, Marines have the opportunity to provide their own words in this answer.

Further along in the survey are questions such as “How satisfied are you with the quality of leadership in the Marine Corps?,” questions about chain of command responsiveness; the character of leaders; and even the dreaded “zero-defect mentality.” The reason for these straight-forward questions about Marine Corps leadership is to identify shortcomings, both real and perceived, that separating Marines see in those of us privileged to lead the Corps.

INCREASED OPERATIONAL TEMPO

Senator STEVENS. Secretary Dalton, Admiral Johnson, and General Krulak, we appreciate your visit with us here today, and we are committed to do our best to help you.

With regard to Senator Domenici’s questions, I do not think it takes a rocket scientist, Senator, to understand the difference in deployment today, as compared to even 10 years ago. It is just overwhelming.

And the tasks that we have assigned to military and peacekeeping are probably the most boring, mundane tasks that a military person in uniform has ever been asked to take on, and they just seem to go on, and on, and on, and on.

I think those deployments are having an impact on the morale and really the retention of our armed services, and some of us would like to have some way to change that. But in the current situation of the world, it does not seem possible.

But I do agree with Senator Domenici: We ought to do our best to try to analyze that and see if there is anything that Congress might do to help meet some of the forces of these people who have been highly trained at a great expense for the taxpayers, some of the things that cause them not to reenlist.

It is the reenlistment rate that really has raised a lot of questions from both sides of the aisle here, and I have had many questions from other Senators just this last week, since we got that amazing statistic from the Air Force, and yours, Admiral, is not much better. Do you have a—

General KRULAK. Sir, we have a pilot retention problem, but I think that Senator Bond hit the nail on the head, it has nothing to do, well, minimal to do with money.

There are so many things that are involved here, we almost insult them when we say, "Hey, here, have some more money."

It has to do with the issue of leadership, it has to do with the issue of challenge, it has to do with the issue of coming back home, and when they do, that they get flight hours, and that the flight hours they get are meaningful, and they are sweating under their arms when they come back off the training op, that is what they come in for.

If you do not give them that, and somebody else offers them a big check in 15 days of work a month, and the rest they can be with their families, they are going to take that. So it is more than just what is going on out in the far reaches, it is what we are doing back here that counts.

Senator DOMENICI. But, Mr. Chairman, in general, we really know we cannot keep robbing from the Defense Department to pay for emergencies. One-half the things you mentioned are because of that.

Senator STEVENS. Absolutely, sir.

Senator DOMENICI. You come home and the equipment is not what it ought to be, because you have not been maintaining the equipment, because the budget did not provide it, and you are taking care of it over there in an emergency situation.

Senator STEVENS. You would not find a service chief that would not stand on this table and beat on it and say amen to what you just said.

Senator DOMENICI. Well, we are going to try to do something about it, if we have to put more money in, we are going to put it in, I mean I am——

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. Well, we have to find some more money, we will take that trip and see if we can get some help on this current deployment. Thank you, gentlemen, very much.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. JOHN H. DALTON

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

CVX

Question. Why does the Navy need a new class of aircraft carriers? Do you intend to evolve the current (*Nimitz*) design or will it be a totally new design?

Answer. The Navy's vision for CVX is to develop a new class of aircraft carriers to significantly reduce total ownership cost and incorporate an architecture for change and flexibility, while maintaining the core capabilities of Naval aviation (high-volume firepower, survivability, sustainability and mobility) for the 21st Century and beyond. Achieving this vision will require significant design changes to incorporate advances in technology and to focus the design on enhanced affordability since little carrier research and development has been undertaken since the 1960's.

The Navy is currently analyzing several alternative designs for CVX. These alternative designs run the gamut from an evolution of the current *Nimitz* design to a totally new design which includes a new hull, new propulsion plant, new communications suite, new distributive systems, new functional arrangements and significant improvements in ship survivability and signature management.

STATUS OF A-12 LAWSUIT

Question. What can you tell us about the status of the A-12 lawsuit and the Navy plans to proceed in its defense? If the verdict is upheld on appeal, would the Navy be liable for the \$1.8 billion cost or would the cost be apportioned DOD-wide? What would be the effect on the Navy modernization accounts?

Answer. On February 23, 1998, the Court of Federal Claims entered a judgment against the United States for over \$3.8 billion plus interest. The amount is erroneous because it fails to reflect \$2.6 billion in progress payments already paid to the contractors. The Government's initial appeal, filed contemporaneously with the judgment, was dismissed on March 19, 1998. The dismissal provides an opportunity to correct the judgment in the trial court. A new appeal will be filed after the correction of the judgment, which we believe will occur very soon.

No payment of any amount will be paid until all appeals have been exhausted. If and when a judgment in some amount becomes final, payment will be made by the Treasury from the Judgment Fund. How and when the Department of Defense may reimburse the Judgment Fund would be determined at that time.

At this time it is impossible to predict any effect on Navy modernization accounts.

F/A-18E/F

Question. How much of a delay has the Navy experienced at this point in the F/A-18E/F production program?

Answer. None. The F/A-18E/F is on production schedule. The first twelve Low Rate Initial Production (LRIP) aircraft are on schedule for delivery starting in January 1999. They will be delivered with the porous wing fold fairing, the correction for wing drop, incorporated.

PER USER FEE CONTRACT STRATEGY

Question. The Department of the Navy/Fleet and Industrial Supply Center procured personal computer software using a new "Per User Fee" contracting and saved \$48 million. In addition to saving money, the new strategy eased software installation and reduced security risks associated with the installation. Does the Department intend to use this innovative approach on other contracts? Can it be expanded to other Departments?

Answer. The Department of the Navy is enthusiastic about innovative licensing of software in various forms and intends to pursue alternatives vigorously as guided by pioneering experiences such as that undertaken by the Fleet and Industrial Supply Center Philadelphia/Defense Logistics Agency team. These approaches hold great promise throughout the Federal Government.

QUESTION SUBMITTED BY SENATOR THAD COCHRAN

APL BARRACKS BARGE

Question. It is my understanding that the Navy is currently in the process of soliciting bids for the acquisition of two APL barracks barges; \$33 million has been appropriated for this acquisition.

Based on the bids which have been received, is this funding sufficient to acquire both barges? If not, how does the Navy plan to fund this requirement?

Answer. The Navy is soliciting bids for the acquisition of two APL barracks barges. Bids are due March 17, 1998. Bid packages will be reviewed after the bid date to determine adequacy of funds. If funding is insufficient, appropriate action will be taken based upon degree and probable cause of the higher than expected bid amounts.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

PRIVATIZATION

Question. How did the Navy and the Marine Corps arrive at the number of civilian and military jobs to be eliminated and/or contracted out?

Were specific, individual studies performed to analyze the savings and appropriateness of activities to compete? Or, was a goal imposed "from the top?"

How did the Navy/Marine Corps determine that contracting out saves 20 percent? Why does the Air Force assume different savings? Please provide copies of the analysis you performed to come to the conclusion that 20 percent was the right number.

Answer. The savings reflected in the Navy's FYDP are derived from our expectation that "competition" not "contracting out" will result in significant savings. This expectation is based on research and analysis performed by the Center for Naval Analysis (CNA). CNA reviewed our experience implementing OMB Circular A-76 in the 1980's and found that "competition", not "contracting out", resulted in cost savings of approximately 30 percent, regardless of the outcome of the cost comparison. As a matter of interest, approximately half of the functions studied remained in-house after the competition, albeit in a more streamlined, efficient organization. CNA also reviewed the Navy's inventory of commercial activities and determined that conducting cost comparisons of activities involving approximately 80,000 full-time equivalents would yield the kind of savings we have incorporated into the Navy's FYDP. The CNA analysis formed the basis for Navy's competition savings projections. I cannot address the Air Force's savings assumptions, but I will be happy to provide you with a copy of CNA's analysis under separate cover that forms the basis of our estimate that competition yields average savings of 30 percent.

Question. With fewer military personnel and DOD civilians after all this contracting out, what will be the impact on overseas rotation and "perstempo" problems?

Answer. I need to reiterate that we are interested in increasing "competition" not "contracting out." Our policy provides a structured check and balance system between military manpower requirements and proposed shore infrastructure reductions for regionalization, outsourcing or privatization initiatives to ensure that our military readiness is not adversely affected. The need to maintain a sea-to-shore rotational base, along with the need to maintain certain critical skills, has indeed limited our ability to compete certain military-intensive functions. For this reason, the Navy's plan to achieve the savings reflected in this budget focuses on competing civilian-intensive functions.

Question. How will the Navy and the Marine Corps monitor and document the progress in achieving your outsourcing programs and achieving the planned savings? How will these data be confirmed by an outside party?

Answer. The Navy is conducting a "competition" program, not an "outsourcing" program. The Navy generally relies upon the cost comparison process established by OMB Circular A-76 to ensure that our competitions result in the most cost effective outcome. Circular A-76 not only provides rigorous guidelines for identifying the costs of both in-house and private sector performance but it also incorporates an independent review process and provides all affected parties with an independent appeal process. The independent reviews will be conducted by both independent contractors familiar with the commercial activity studies and by in-house Navy auditors. Actual savings of the competition will include both personnel and other operating costs. To monitor and document our progress in achieving the planned "competition" savings, the Navy has established an annual reporting system. This system will track actual costs for five years subsequent to the implementation of the cost comparison decision. Savings conformance will be determined by an analysis of actual total operating costs against planned total operating costs. Based on our past experience, we expect actual costs to track well with the cost comparison estimates. In addition to review by the independent reviewing official, the appeals officer, and all other interested parties during the cost comparison phase, cost comparison data will be available for public scrutiny and external review by the Naval Inspector General, the Naval Audit Service, the DOD Inspector General, the General Accounting Office, and other interested parties.

Question. What actions do you plan if the savings do not materialize as planned? More outsourcing? Cuts in procurement? Force structure? Readiness?

Answer. Failure to achieve the projected savings would have a serious impact on the Navy's ability to fund the modernization program without taking vertical cuts that would jeopardize other existing requirements. For the Marine Corps, the effect of less than anticipated savings would be a decrease in procurement and an increase in Operation and Maintenance. To limit the risk of jeopardizing other requirements and to ensure we meet the savings projected in the FYDP, we are also aggressively pursuing related cost savings initiatives such as regionalization, privatization, community use and public-private ventures.

READINESS

Question. What do your latest, 1998, data show about pilot retention? Is it getting better or worse? Is it better or worse for married pilots? With families? What are the socio-economic profiles of the pilots leaving? Staying?

Answer. The Navy's two primary predictors of pilot retention, resignations and Aviation Continuation Pay (ACP) take rates, demonstrate that pilot retention continues to be on the decline. Pilot resignations increased from 414 in fiscal year 1997

to 540 in fiscal year 1998, while fiscal year 1998 ACP take rates, as shown in Table 1, were much lower than required.

TABLE 1.—FISCAL YEAR 1998 ACP PROGRAM

Aviation subcommunity	Aircraft type	Bonus amount	Number required	Number eligible	Eligible applied	Percent of goal
VFA Pilot	F/A-18	\$17,000	23	81	11	48
VF Pilot	F-14	17,000	13	62	4	31
VAQ Pilot	EA-6B	19,000	14	28	3	21
VS Pilot	S-3	19,000	15	32	2	13
VAW/VRC Pilot	E-2/C-2	10,000	17	58	7	41
Carrier Pilot Take Rate			82	261	27	33
VP Pilot	P-3	10,000	46	200	44	96
Prop Pilot Take Rate			46	200	44	96
Pilot Take Rate			128	461	71	55

Thus far this year only 27 eligible carrier pilots (33 percent of the needed 82) applied for ACP agreements that obligated them through 14 years of commissioned service. This take rate, lowest in program history, is a sound predictor that critical department head billets will not be filled since those that have not signed an agreement are free to leave the Navy. These two indicators of resignations and take rates together highlight a continued trend of low pilot retention. The Navy does not track retention by socio-economic profiles such as retention for those married or with families.

For the Marine Corps, as of March 16, there have been 70 fixed wing pilot resignations in fiscal year 1998. These figures and the trend for the year are well below the fiscal year 1997 rate (92) and slightly higher than the fiscal year 1996 rate (69) as of March of each year.

The Marine Corps does not track pilot resignations by single/married/divorced categories. Current percentages of overall USMC Officers (O-3 and O-4) include the following: 80 percent Married, 4 percent Divorced and 16 percent Single. There is no common thread to the socioeconomic profiles of the pilots leaving or staying. All pilots are now eligible for the Aviation Continuation Pay (ACP) program, making them the highest paid company/field grade (O-3 and O-4) officers in the Marine Corps.

Question. What are the specific complaints of pilots leaving the Navy?

Answer. Table 1 lists "reasons for leaving" as cited by Naval Aviators on fiscal year 1997 exit surveys. It is noteworthy that no requirement exists to complete an exit survey.

TABLE 1.—Reasons for Leaving the Navy Cited by Pilots in Fiscal Year 1997 Exit Surveys

Reason for Leaving	Percent Citing
Family Separation	20
Promotion Opportunity	14
Quality of Leadership	12
Amount of Sea Duty	8

NOTE.—These results were compiled from 126 completed exit surveys: the number represents only 30 percent of the aviators who resigned in fiscal year 1997. Additionally, the CNO's Aviation Retention Team compiled the below list of reasons for resigning.

These anecdotal reasons were heard from direct discussions with the fleet during visits by the team to various aviation commands: Increased amount of family separation; Frustration with Navy leadership; High operational tempo; Inadequate funding to support operations; Erosion of compensation/benefits; Reduced promotion opportunity; and Inadequate infrastructure.

In September 1997, a USMC Aviation sponsored briefing team, composed of junior field grade officers traveled to both coasts to visit ready rooms and talk to aviators about the facts and myths of a career as a Marine aviator. Aviators provided the team with frank discussion and openly voiced their concerns. There was no single

reason that influenced an aviator's decision to resign. The major reasons cited to the briefing team for leaving the Corps included: Increased airline hiring; Increased amount of family separation; Desire to fly more hours (AV-8B and CH-53); Excessive time in Joint/Inter-/Intra-service exercises which limit training for individual pilot skills; and Uncertainty about future military downsizing.

Question. Which of your "quality of life" programs are working? Which are not? Which generate the best pay-off in terms of retention? Please provide the data and analysis to substantiate your answer, or are you using judgement or anecdotal evidence to assess the degrees of success or failure? Does the Navy have any studies on these issues? By independent organizations? Please provide copies.

Answer. I've just received the results of the 1997 Navy Bureau of Naval Personnel (BUPERS) QOL survey that asked a representative sample of Sailors about their perceptions and use of 29 of our QOL programs. Their answers tell us that most of our QOL programs are working, in terms of both readiness and retention.

When we asked members to rank those programs that they feel contribute the most to their readiness, officers cite as their top three: (1) Tuition Assistance (TA)—47 percent; (2) Morale, Welfare, and Recreation (MWR) Sports and Fitness Ashore—46 percent; and (3) MWR Recreational Activities Ashore—33 percent.

The top three programs for maintaining readiness among enlisted are: (1) TA—60 percent; (2) Montgomery GI BILL (MGIB)—51 percent; and (3) MWR Recreational Activities Ashore—32 percent.

Regardless of pay grade, MWR and Voluntary Education (VOLED) programs have the greatest impact on readiness.

The most frequently used QOL programs were cited as MWR Recreation Activities Ashore (Officer—85 percent, Enlisted—85 percent), MWR Sports and Fitness Ashore (Officer—84 percent; Enlisted—85 percent), and Navy Campus Education Centers (Officer—37 percent; Enlisted—61 percent). QOL programs with the highest quality ratings were: TA (78 percent); MGIB (77 percent); and Navy Campus Education Centers (70 percent). 25 of 29 QOL programs were rated "good" or "very good" by a majority of our Sailors.

Out of 29 QOL programs that were rated, four did not receive a "good" or "very good" assessment: (1) Spouse Employment Assistance (39 percent); (2) Single Sailor Program Ashore (42 percent); (3) Good Relationships, Strong Marriages, and Healthy Families (49 percent); and (4) Outreach and Command Representative Program (50 percent).

These programs are relatively new, and many of our Sailors may not be as familiar with them as some of our more established efforts.

Some programs haven't been well publicized. The least recognized programs among officers included the Chaplains Religious Enhancement Development Operation (CREDO) (15 percent), Relationships, Families, and Marriages (13 percent), and the Volunteer Program (12 percent), while enlisted reported less recognition for Academic Skills (26 percent), CREDO (25 percent), Outreach/Command Representative Program (22 percent), and Single Sailor Ashore (20 percent).

Sailors report that MWR and VOLED programs most significantly affect their retention decision. When asked, "Would you reconsider your decision to remain in the Navy if programs were reduced or eliminated," officers listed TA, MGIB and MWR Sports/Fitness Ashore as the top 3 programs affecting their retention decision. Enlisted members listed TA, MGIB and Navy Campus Education.

A recently completed study by the Center for Naval Analysis (CNA) on the "Effectiveness of the Navy's Voluntary Education Program" has told us that participation in off-duty education programs has a clear relationship to both promotability and retention. Sailors who accumulate college credits have a significantly higher probability of making E-5 in five years. College participants have a significantly higher reenlistment rate. As credits accumulate, the probability of first reenlistment increases. The CNA study also examined the program's cost effectiveness. Investment in Academic Skills improvement provides a dramatic return of between \$9 to \$22 for every Navy dollar invested in the program in reduced recruiting and training costs. The final report for this study is expected in mid April.

Our most recent data on QOL programs is presented here, though the report on the findings of the 1997 QOL Survey (prepared by Navy Personnel Research and Development Center (NPRDC)) is pending. NPRDC is a Navy personnel research laboratory that is staffed primarily by civilian research psychologists. Although NPRDC research psychologists work with some guidance from Navy/BUPERS sponsors, they maintain their scientific integrity.

Marine Corps quality of life (QOL) programs contribute to military mission outcomes. This was demonstrated in the 1994 "Quality of Life in the Marine Corps" study conducted by the Navy Personnel and Research Development Center (NPRDC). This study statistically linked the QOL program investments to readiness

and retention. This study is scheduled to be readministered in 1998 to reassess Marines' QOL across 11 areas and their relation to mission outcomes.

There is a myriad of QOL program-specific research, such as the MWR Patron Needs Assessment, also conducted by NPRDC and completed in 1997. According to data, the top 10 programs/services rated as most important to Marines were: (1) Exchange; (2) Information, Tickets and Tours (ITT); (3) Fitness Centers; (4) ATM Machine; (5) Military Clothing Store; (6) Gas Station; (7) Movie Theater; (8) Barber Shop; (9) Auto Hobby Shop; and (10) Swimming Pools. Two other recent QOL program-specific studies conducted were: the Effectiveness of the Voluntary Education Program, performed by the Center for Naval Analysis, and the Spouse Employment Survey and Analysis, performed by Human Technology, Inc. and CODA Inc.

The Marine Corps has a robust QOL research program, with many ongoing initiatives to determine both Marine and mission needs. In 1998, an "Assessment of Program Contributions to Military Outcomes," will obtain effective program measures for 22 MWR and Human Resources programs, and assess each program's contribution to military outcomes.

Another study, the "Marine Corps MWR Leadership Assessment," will gather commander's and senior NCO leadership recommendations for MWR mission support. Both studies will be conducted by NPRDC.

Research results are used as the basis for policy and resource decisions. Combined with commanders' leadership experience and judgment, the Marine Corps QOL programs provide a demonstrate return on investment to mission outcomes. All of our Quality of Life programs are producing positive results.

One of the programs which is working very well is the Voluntary Education Program (VOLED). VOLE participants have significantly better promotion prospects. Academic skill participants are more likely to cross-rate. VOLE participants have significantly lower demotion rates and higher reenlistment rates.

Family Programs improve Quality of Life for Marines and their families and enhance retention and readiness by providing the tools needed to meet the challenges of the military lifestyle. Family Service Centers provided 289,000 units of service in their first year of operation in 1988. In 1997, 1.7 million units of service were provided. A recent study by Caliber Associates looked at selected family service center programs (all services) and determined that there was a nexus between family service center programs and readiness.

The Marine Corps child care programs are also providing essential services which affect readiness. The demand for child care exceeds the current capacity but we are reviewing our delivery systems to make certain that we are providing the services that families most require. For example, we are focusing on ways to expand care for children three years and under as this represents the greatest percentage of our unmet need.

Question. What changes have been occurring in spouse, child, and substance abuse for the past two years? Please differentiate between officers and enlisted, length of service, and among major military specialties and PERSTEMPO rates. What is the role of the current high PERSTEMPO in any changes in family or substance abuse? Please provide copies of any analysis you have of the relationship.

Answer.

Navy.—There have been no significant changes in spouse and child abuse for the past two years. We have no evidence or indication that rank, rate, length of service or military specialty have had any direct impact on incidence rates of child or spouse abuse. Data from the Navy Central Registry shows the following:

Number of incidents reported for the last five years:

	Fiscal year—				
	1997	1996	1995	1994	1993
Spouse Abuse:					
Incidents reported	3,357	3,424	5,228	6,057	6,344
Substantiated	2,493	2,558	3,586	4,053	4,277
Rates of spouse abuse incidents reported per 1,000 spouses	16.3	13.9	22.4	24.5	25.5
Child Abuse:					
Incidents reported	2,606	2,435	3,822	4,122	5,368
Rates of child abuse incidents reported per 1,000 children	7.8	7.1	10.5	13.8	13.5

Navy abuse incident reports leveled off and decreased in fiscal year 1993, fiscal year 1994, fiscal year 1995 and fiscal year 1996. We believe this is due not only to downsizing, but also to improved screening of cases with our Risk Assessment Model. It may well be that fear of career consequences has decreased reporting, as indicated by the Abuse Victim Study which was required by the Defense Authorization Act for Fiscal Year 1993 (Public Law 102-484).

In general, substance abuse in the Navy has declined in the past 18 years. We credit our aggressive prevention and deterrence efforts, to include education, providing healthy alternatives and a vigorous drug-testing program. In contrast to the post-Vietnam era, our culture, with respect to drug abuse, is one of "Zero Tolerance." The goals of our urinalysis program have always been to deter and detect drug abuse, as well as provide data on the prevalence of drug abuse. We've been quite successful—the proportion of sampled servicemembers testing positive for drugs has fallen from approximately 7 percent in 1983 to less than 1 percent in recent years, with no changes in drug abuse trends over the past two years. Alcohol abuse has shown a similar decline. In 1982, 41 percent of Navy personnel reported "loss of productivity" (late for work, missing work, etc.) because of alcohol abuse. That number, while still too high, declined to 20 percent in 1995. We anticipate that DOD's Worldwide Survey on Substance Abuse, currently in progress, will show additional reductions in fiscal year 1996 and fiscal year 1997.

In fiscal year 1996 and fiscal year 1997, our urinalysis positivity rate remained below 1 percent. In those years, officers accounted for less than .05 percent of all positive samples and enlisted personnel ages 25 and under accounted for approximately 70 percent of all positive samples. Historically, first term personnel account for the majority of all positive urinalysis samples. PERSTEMPO does not appear to influence our rates of substance abuse.

In the last two years, we've implemented testing of all Navy applicants at Military Enlistment Processing Stations (MEPS) upon entry into the Delayed Entry Program (DEP). The result has been approximately 4 percent of all applicants tested positive for drug abuse. Our Navy Drug Screening Labs (NDSL's) also began using a better THC chemical reagent that is more sensitive to a broader range of THC metabolites. The result has been an increase of approximately 700 additional urine samples testing positive for THC in fiscal year 1997 over fiscal year 1996. We've also revised our Self-Referral for Drug Abuse Policy so that it protects Navy's investment in training and experience by preventing fraudulent use of the self-referral program, while it continues to help those who have been diagnosed as drug dependent. Also, we've implemented an Inhalant Abuse Policy to establish guidelines for processing personnel who abuse inhalants for administrative separation.

Other important initiatives include implementation of Urinalysis Program Coordinator Training to standardize our urine specimen collection and submission procedures. We have distributed software that helps commands better manage their urinalysis programs and track substance abuse trends. We've also upgraded our Navy Drug Resource Website (NAVDWEB) with improved graphics, easier instructions, and more information.

In alcohol abuse prevention efforts, we introduced our "Right Spirit" Alcohol Abuse Prevention and Deglamorization campaign in March of 1996. This campaign tightens policy, eliminates waivers for underage drinking in certain locales, increases education and training, and establishes prevention education detachments in San Diego and Norfolk.

The chart below shows alcohol and drug abuse trends by age and pay grade. Heavy drinking is defined as five or more drinks in one setting at least once a week.

[Past 12 months]

Characteristic	Percent Illicit Drug Abuse	Percent Heavy Drinkers
Age:		
20 and under	16.6	29.8
21-25	10.3	26.6
26-34	4.8	15.4
35 and older	3.0	9.3
Pay Grade:		
E1-E3	15.9	32.4
E4-E6	6.1	18.2
E7-E9	2.0	11.4
W1-W5	2.8	9.5

[Past 12 months]

Characteristic	Percent Illicit Drug Abuse	Percent Heavy Drinkers
01-03	2.7	6.1
04-010	1.2	2.0

Source: Department of Defense Worldwide Survey of Health Behaviors for Military Personnel.

There is no direct evidence that “downsizing” and an increased PERSTEMPO have contributed to increased spouse, child, or substance abuse. We have noted that personal childhood experiences, learned behavior patterns, and individual psychological factors appear to influence more directly the incidence of child or spouse abuse. Situational family stress, such as work stress, is not a strong predictor of child or spouse abuse, although it could increase risk when occurring in context with the known risk factors I mentioned.

While we have not noted a relationship between increased PERSTEMPO and increased substance abuse, we do recognize that there are warning signs that we must closely monitor.

Alcohol and drug abuse patterns differ among certain socio-demographic groups and environmental conditions. We know that alcohol and drug abuse is often more common and heavier among younger persons, males, and the less educated. Navy, like the other military Services, is largely made up of this high risk (male, 17 to 25) population. In addition to age, sex and education, marital status and pay grade are risk factors. Single Sailors or those who are married without their spouse present are more likely to abuse alcohol. Those in pay grades E1-E3 and O1-O3 are five times more likely to abuse alcohol or drugs than senior enlisted and officers. Isolated duty and long deployments are also high risk factors.

The above data was taken from the 1995 survey. Current Navy data shows a trend of decreasing incidents, particularly in drinking and driving incidents and injuries. Discharges because of alcohol or drugs have not changed. In short, we have not seen evidence of an upturn of substance abuse because of PERSTEMPO.

USMC.—There has been no significant change in substance abuse in the past two years. Preliminary figures for the number of substantiated incidents follow:

	Domestic Violence	Child Abuse
Fiscal year 1997	1,597	844
Fiscal year 1996	1,979	969

The USMC family violence reports do not regularly differentiate between officer and enlisted. Also, we have not to date maintained data on length of service or major military specialty.

We commissioned a special study by the University of Maryland School of Social Work in fiscal year 1996 to determine if the high OPTEMPO in fiscal year 1996 was a causal factor in domestic violence. The findings were that OPTEMPO was not a causal factor. However, deployments may precipitate incidents of family violence by someone already disposed to use violence.

F-18E/F

Question. In 1998 dollars, what is the current total program unit cost for a F-18E, and F-18F? For the C/D (Lot 19) models? (Please include all RDT&E, MilCon, and Procurement costs.)

Answer. Unit procurement cost for the “E” and “F” (APN 1 and 6) for 548 A/C procured as per the fiscal year 1999 President’s Budget are:

“E” equals \$63.875 million/Unit in fiscal year 1998 dollars.

“F” equals \$65.692 million/Unit in fiscal year 1998 dollars.

E&MD (fiscal year 1998 dollars) equals \$5,870.1 million as of the fiscal year 1999 President’s Budget. Amortize this over 548 units:

“E” equals \$10.712 million/Unit in fiscal year 1998 dollars.

“F” equals \$10.712 million/Unit in fiscal year 1998 dollars.

Total unit procurement cost including APN 1, 6 and E&MD for the “E” and “F” are:

“E” equals \$74.587 million/Unit in fiscal year 1998 dollars.

“F” equals \$76.404 million/Unit in fiscal year 1998 dollars.

This assumes that items such as support, spares, non-recurring and E&MD costs are amortized equally across all units and the variants.

The C/D Lot 19 A/C were procured in fiscal year 1995. As of the fiscal year 1999 President's Budget, the unit costs for the "C" and "D" (APN1 and 6) are:

"C" equals \$45.372 million/Unit in fiscal year 1998 dollars.

"D" equals \$46.946 million/Unit in fiscal year 1998 dollars.

E&MD (fiscal year 1998 dollars) equals \$5,341.5 million as projected from the fiscal year 1996 C/D SAR approved program (APB) information. Amortized over 1,027 USN units:

"C" equals \$5.201 million/Unit in fiscal year 1998 dollars.

"D" equals \$5.201 million/Unit in fiscal year 1998 dollars.

Total unit procurement cost with APN 1, 6 and E&MD for the "C" and "D" are:

"C" equals \$50.573 million/Unit in fiscal year 1998 dollars.

"D" equals \$52.147 million/Unit in fiscal year 1998 dollars.

Question. What total program unit cost, in 1998 dollars, did the Navy project in 1993 for the E/F?

Answer. Using the 92 DAB estimate and the escalation at that time, the unit procurement cost for 1,000 E/F aircraft including both APN 1 and 6 was: Unit procurement cost equals \$61.198 million/Unit in fiscal year 1998 dollars.

E&MD (fiscal year 1998 dollars—escalation at that time) as estimated at the 92 DAB amortized over the projected 1,000 A/C was: Unit E&MD cost equals \$6.001 million/Unit in fiscal year 1998 dollars.

Total Unit Procurement Cost including APN procurement (1 and 6) and E&MD was: Total unit procurement cost equals \$67.199 million/Unit in fiscal year 1998 dollars.

Question. Please cite all performance goals stated in 1993 and what changes, up or down, have occurred up to the present time on all issues, including range, acceleration, maneuverability, and radar cross section. Is any consideration being given at this time to changing or dropping any of these or other performance criteria?

Answer. There is no consideration being given at this time to change or drop any Key Performance Parameter (KPP). Attached are the KPP parameters for the F/A-18 E/F. The objective and threshold values represent our ORD requirements. Since 1993 the only change to the ORD was to incorporate performance requirements for the F version. Originally F-18F performance was to be a fallout since it was only to be used as a trainer. With the decision to replace the F-14 with the F-18F, performance requirements were established. (See the Key Performance parameter enclosure.)

In those KPP's with multiple entries (e.g., Interdiction Mission Radius, Recovery, Payload, Specific Excess Power, etc.) the first entry is the "E" value and the second is the "F" value.) The launch wind over deck definition was also changed and based on larger Max Takeoff Gross Weight rather than the lower Typical Combat Gross Weight. This added 4,000 pounds to the calculation used to determine launch wind over the deck requirements for the airplane. This, in effect, increased the KPP requirement. Even within this more stringent requirement we have margin. The status numbers presented reflect flight test results collected to date. This performance data was collected, reviewed and validated during OT-IIA. Radar Cross Section is classified; however flight testing has been done and the aircraft meets specified requirements.

Question. Please cite the flight test results for each of these criteria.

Answer. On the enclosure (Key Performance Parameters), the status numbers reflect flight test results collected to date. This performance data was collected, reviewed and validated during OT-IIA.

Question. A recent draft GAO report lists 420 technical deficiencies in the F-18E/F. What is your cost and time estimate to resolve all these with no sacrifice in any performance criterion?

Answer. Current funding and schedule provide sufficient resources to correct all deficiencies requiring correction to support a successful Operational Evaluation (OPEVAL). All of the corrective actions are being tracked individually and cumulatively for impact to performance, and all Key Performance Parameters are being met with margin to spare.

Question. In 1993, Naval Air Systems Command compared the performance of the A and C models of the F-18 to the goals of the E model. See table below. Please provide data from flight test results to compare actual F-18E performance to the original goals and to the specified earlier F-18's.

	Initial F-18A Speci- fication	F-18A (Lot 1 FSD)	F-18C (Lot 14)	F-18C (Lot 15)	F-18C (Lot 19)	F-18E goal in 1993	F-18E flight test re- sults
Escort Range (NM)	420	319	302	.....	.....	356	.....
Interdiction Range (NM)	618	437	398	.....	.....	501	.....
Accel (sec.) 0.8 to 1.6 mach	98	144	180	.....	.....	153	.....
Specific Excess Power(Ps) (Ft./Sec.) at 1, 3, and 6 Gs .....	.....	.....	.....	.....	.....	.....	.....
Approach speed (kts.)	128	140	142	.....	.....	144	.....

Answer. Provided here within the chart below:

	F/A-18E ORD	F/A-18A Lot 1 FSD	F/A-18C				F/A-18E		Flight test re- sults
			Lot 12	Lot 14	Lot 15	Lot 19	DAB March 1992	PDR June 1993	
Fighter Escort Radius (NM)	410	362	343	341	331	330	420	423	434
Interdiction Radius (NM)	430	415	376	374	370	369	520	504	512
Accel'tion (sec) 0.8M to 1.2M, 35K	70	55	58	58	57	57	60	67	67
Specific Excess Power, Ps (fps) 1g @ 0.9M, 10K	600	617	599	599	699	695	637	639	661
Approach Speed (kts)	150	140	146	146	146	146	144	145	142

Note.—The ground rules for defining performance specifications have changed over time. The rules for the F/A-18A and the F/A-18E are different. For example, the flight profile for measuring Interdiction Radius was different for the F/A-18A than it is for the F/A-18E. The table above uses the F/A-18E rules, which have been applied to the other variants for consistency. This is why column one was changed to F/A-18E ORD vice F/A-18A specification.

F/A-18E/F WING DROP

Question. Please state your view on the media coverage about the F/A-18E/F “wing drop” problem and about comparisons of E/F performance to earlier models of the F-18. Do you believe it useful or important for the public to be informed of these issues?

Answer. Yes, the Department of the Navy fully complies with the Principles of Information as established by the Department of Defense (see attached).

Question. Please provide copies of Navy testimony or printed reports to Congress or the public identifying the “wing drop” problem before the first instance of its being reported in the media.

Answer. Neither printed reports nor Navy testimony were requested by Congress or the public prior to initial reporting in the media. However, wing drop was included in a list of technical issues to be solved in flight test during a briefing to Senator Russell Feingold (D-WI) in a visit to NAS Patuxent River, Maryland, in May 1997. For informational purposes, provided are an F/A-18E/F Wing Drop Awareness Chronology dated February 16, 1998 and responses to questions submitted by Mr. Creighton Greene, Professional Staff Member, Senate Armed Services Committee, in December 1997.

F-18E/F

Question. Why does the Navy compare the E/F to the lower performance (i.e. Lot 12 version of the C/D model rather than the current (i.e. Lot 19) version? Please present a comparison of the C/D Lot 12 to Lot 19 on all significant performance criteria.

Answer. The attached chart provides the comparison of Lot 12 to Lot 19. As the Navy developed the ORD in 1991, to support the Defense Acquisition Board in 1992, the current version of the F/A-18C/D was the Lot 12. Therefore, the Lot 12 F/A-18C/D was used to develop the performance baseline for the F/A-18E/F. Newer Lots were planned at the time but their performance parameters had not been defined.

	F/A-18E ORD	F/A-18A Lot 1 FSD	F/A-18C				F/A-18E		
			Lot 12	Lot 14	Lot 15	Lot 19	DAB March 1992	PDR June 1993	Flight test re- sults
Fighter Escort Radius (NM)	410	362	343	341	331	330	420	423	434
Interdiction Radius (NM)	430	415	376	374	370	369	520	504	512
Accel'tion (sec) 0.8M to 1.2M, 35K	70	55	58	58	57	57	60	67	67
Specific Excess Power, Ps (fps) 1g @ 0.9M, 10K	600	617	599	599	699	695	637	639	661
Approach Speed (kts)	150	140	146	146	146	146	144	145	142

Note.—The ground rules for defining performance specifications have changed over time. The rules for the F/A-18A and the F/A-18E are different. For example, the flight profile for measuring Interdiction Radius was different for the F/A-18A than it is for the F/A-18E. The table above uses the F/A-18E rules, which have been applied to the other variants for consistency. This is why column one was changed to F/A-18E ORD vice F/A-18A specification.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

NAVAL RESERVE CH-60 AIRCRAFT

Question. Secretary Dalton, I am told that the Navy Reserve has stated that one of their highest unfunded priorities is the CH-60. Are any of the aircraft requested in the fiscal year 1999 budget for the Naval Reserve? How many additional aircraft do the Navy Reserves require in fiscal year 1999?

Answer. The fiscal year 1999 budget does not include the procurement of CH-60 aircraft for the Naval Reserve. The Navy's Master Helicopter Plan was developed to expand warfighting capability, mobilize the force, neck down type/model/series and consolidate the force structure. To achieve that aim Navy is moving toward an all H-60 force consisting of two series helicopters; the CH-60 and the SH-60R. A key component of the plan is to eventually mirror the Naval Air Reserve Force's helicopter community to that of the Active force. Currently the Naval Air Reserve Force operates five different series helicopters; HH-60H, UH-3H, SH-3H, SH-2G and the MH-53E. To align the Reserve helicopter force with Active forces will require the replacement of all existing aircraft with either the CH-60 or the SH-60R. The Naval Reserve Force has requirements for 28 airframes through fiscal year 2008. Two reserve aircraft were appropriated in fiscal year 1998. The reserves have included procurement of 2 CH-60's as high unfunded priorities in fiscal year 1999.

HELLFIRE II MISSILES

Question. Secretary Dalton, is there an unfunded requirement for Hellfire II missiles? If so, please tell me how many of these missiles are required by the Department of the Navy and what your procurement plans are.

Answer. The Hellfire missiles in the inventory and on contract are fully funded. The projected inventory is 4,000 missiles below the inventory objective. Based on overall funding priorities, the DON has no plans to procure additional Hellfire missiles.

QUESTIONS SUBMITTED BY SENATOR JUDD GREGG

OPERATIONAL READINESS

Question. I understand that (1) operational demands are threatening to diminish readiness; and (2) past the FYDP period, i.e. 2003 and beyond, the Navy is concerned that the average rate of funded production will not permit you to maintain both the required ship and aircraft inventory.

Both of these are serious issues, would you expand on them please?

What is the approximate magnitude of your ship building/repair/modernization shortfall beyond fiscal year 2003?

Answer. The Navy is striving to support operational demands, such as maintaining two Carrier Battle Groups in the Persian Gulf, with regularly scheduled forward-deploying forces. This level of support comes at a cost, in reduced presence in other theaters, and poses significant challenges for the Fleet Commanders.

—Short term impacts are slight due to the forward deployed posture and inherent mobility of naval forces which make them an ideal choice for crises response and easy to shift between theaters when contingencies arise.

—Longer term support comes at a greater cost due to compressed Interdeployment Training Cycles (IDTC) and perturbation to long range deployment schedules, which could result in increased OPTEMPO/PERSTEMPO.

—Higher transit speeds, increased flight/steaming hours, and the requirement to compress or defer maintenance have potential impact on force readiness and quality of life for sailors.

Our current ship and aircraft procurement plans meet our present recapitalization requirements. But, for the long term, Navy will have to balance funding and procurement options carefully in order to meet our inventory goals.

—We need to reduce our front end investment costs with initiatives such as multi-year procurement.

—New Attack Submarine (NSSL) teaming arrangement between Newport News Shipbuilding and Electric Boat enable us to take advantage of one production line rather than two.

—We are reducing support requirements with programs like "Smart Ship."

—We are modernizing and remanufacturing existing aircraft such as the SH-60, AV-8B, and AH-1/UH-1.

—We will extend the nominal service lives of aircraft and ships when it makes good business sense.

Beyond fiscal year 2003 we will need to increase our average shipbuilding from 6-7 to 8-10 ships per year.

Question. The Navy is down to four government Shipyards.

What do you see as the role of government shipyards, and Portsmouth Naval Shipyard in Portsmouth, New Hampshire, in particular, in future Navy plans?

What is the Navy strategy to maintain government shipyards as modern facilities with well trained workforces, including apprentices?

Answer. The public sector's Naval Shipyards are vital assets for depot level overhaul and maintenance, including battle damage repairs in wartime and voyage repairs in peacetime, of nuclear-powered ships and large-deck conventionally-powered surface ships. Naval Shipyards provide a responsive, geographically dispersed, labor strike-free industrial capability in support of fleet readiness. Naval Shipyards provide a vital link to fleet operations by maintaining the capability and capacity to effectively overhaul and modernize ships. Portsmouth Naval Shipyard is an integral part of the public sector's ship repair base through the Future Years Defense Program (fiscal year 1999-2003). The workload planned for Portsmouth Naval Shipyard is relatively stable across the FYDP. The Navy's strategy is to balance workload in the public and private sectors to sustain needed maintenance capabilities and support the ship construction program.

The Navy's strategy provides incentives and/or funding to revitalize processes and business practices; to plan, prioritize and recapitalize facilities as required; and to continue to provide training to shipyard employees to sharpen their skills, increase their knowledge levels, and improve upward mobility.

EXCESS INFRASTRUCTURE AND BASE CLOSURES

Question. I see that you fully support base closures in the years ahead. What type/category of excess infrastructure exists in the Navy? What bases are excess to your needs and, therefore, possible candidates for closure or realignment?

Answer. The Navy is currently working with the Office of the Secretary of Defense to develop a report for Congress required by section 2824 of the Fiscal Year 1998 Defense Authorization Act on the closure and realignment of military installations. Excess infrastructure in the Department of the Navy will be addressed in this report.

QUESTIONS SUBMITTED BY SENATOR ERNEST F. HOLLINGS

FISCAL YEAR 1999 RESERVE PERSONNEL, NAVY [RPN] FUNDING

Question. In the past five years many have argued, wisely I believe, that the Department did not adequately fund our Naval and Marine Reserves. Does the fiscal year 1999 Budget adequately fund these citizen sailors or did you leave it to Congress to do?

Answer. The fiscal year 1999 President's Budget funds Naval Reserve Annual Training (AT) statutory requirements under U.S. Code, Title 10, at a budgeted participation rate of 99 percent for officers and 81 percent for enlisted personnel. The Inactive Duty Training (IDT) drill requirements are budgeted at a participation rate of 99 percent officer and 92 percent enlisted. These figures are based on historical execution. Our goal is to execute at a level which ensures that all reserve personnel perform the required AT and IDT periods.

NAVY JROTC

Question. I am receiving letters from students, educators and parents from all across South Carolina telling me that this year's funding for Navy JROTC programs has been severely cut. Specifically they cite that travel funds have been halved, uniform funding has been cut so severely that cadets are no longer issued the white coat, that replacements for instructors who depart cannot be hired and that funds the Congress appropriated are being withheld for other Navy programs. If true, this clearly defies the will of Congress. Please answer these charges.

Answer. The Navy currently supports 435 NJROTC units at host high schools throughout the United States, with nearly 63,000 cadets and 960 instructors. NJROTC is a superb youth development program making important contributions to the future of our country. The Navy has made no severe cuts to its NJROTC program, but available funding in fiscal year 1998 is about 2 percent below that of fiscal year 1997, principally due to general Congressional cuts to the O&M, Navy account, of which this program took a small share.

Since fiscal year 1992, Navy spending on this program has more than doubled, even after inflation. This has occurred over the same time period in which total

Navy resources have declined by 20 percent. While this continued level of funding for NJROTC clearly shows our commitment to the program, it is a very real fiscal challenge. Adding to that challenge is the link between active duty pay and allowances and NJROTC instructor salaries. Back in fiscal year 1992, salaries made up 54 percent of the program's cost while today they make up 85 percent. Since the salary levels are prescribed by law, any unplanned reductions to the budget must come out of other areas of the budget such as travel, cadet uniforms, etc.

Regarding uniforms, cadets have never been issued white coats. Budget reductions over the past few years, however, have necessitated restructuring of the Cadet Sea Bag, without reducing the quality of the program. Certain uniform items such as service dress blue jackets with white combination hats, which were issued to all cadets, are now only authorized for cadet officers and chief petty officers (about 25 percent of unit).

To operate within the available funding, it has also been necessary to place controls on the authorization and replacement of additional instructors at our larger units. We are keenly aware of the difficulty this has caused to some NJROTC units and the limits it imposes on enrolling additional interested students. One Naval Science Instructor and one Associate Naval Science Instructor are the normal minimum at a unit. We are limiting further growth of instructors above the minimum required to ensure funding remains within that allocated.

The Navy will continue to support the NJROTC program to the fullest extent possible in this time of austere funding.

GYMNASIUM IN SUPPORT OF NUCLEAR POWER SCHOOL RELOCATION

Question. The Navy has made significant progress in preparing to move the nuclear propulsion school from Orlando to the Naval Weapons Station at Goose Creek, South Carolina. However, in reviewing this effort, I am concerned that BRAC requirements to build the needed facilities have been ignored. Specifically, a gymnasium was not included in the plan. Because of the large number of students added to the post population by this move, the small metal building now being used as a gymnasium appears clearly unable to support the expanded post population. Therefore, BRAC funds to build a gymnasium should have been included in this project. Please review Navy plans and advise me of your findings with respect to the gymnasium. If you find that a gymnasium is not needed, please explain why.

Answer. A fiscal year 1996 BRAC project, P-016U, is constructing six barracks and a core building for the Nuclear Power School in Charleston. The core building will contain a fitness center which supports the student population and includes a nautilus center, weight room, and outside volleyball and basketball courts. This project is scheduled for completion May 1998.

QUESTION SUBMITTED BY SENATOR DALE BUMPERS

NTACMS

Question. In fiscal year 1998 the Congress added to the Navy's budget \$10 million for pre-EMD engineering to marinize the Army Tactical Missile System (ATACMS). It was Congress' intent that this seed money was to be followed by a Navy program to integrate the marinized Navy Tactical Missile System (NTACMS) into the fleet for the Navy's mission to provide fire support in land attack warfare.

What is the status of the Navy TACMS program? Has the Navy requested any funds for the program in the fiscal year 1999 budget?

Answer. NTACMS, which marinizes the ATACMS missile for submarine and surface ship launch, will provide the capability for precision strike and interdiction at extended range (160NM). In addition to an Anti-Personnel/Anti-Machinery (APAM) warhead, plans include development of an improved hard target penetrator. This capability can be fielded at significantly reduced cost by leveraging Army ATACMS development and fixed production costs.

The fiscal year 1999 President's Budget provides \$145 million of NTACMS RDT&E funds over the FYDP, which will support an fiscal year 2001 EMD start and an fiscal year 2006 IOC.

The fiscal year 1998 funding was used to develop and refine required modifications to the Army ATACMS missile and definition of the capsule for submerged launch and the canister for surface launch. These will include mechanical, electrical, and data transfer interfaces between the missile, the capsule/canister, and the ship. Funds were also allocated for the engineering analysis required for ATACMS integration to Navy mission planning, weapons and fire control systems; for preparation of documentation to support a Milestone II decision, Operational Requirements Doc-

ument, and Concept of Operation documentation, and for initial planning for underwater ejection testing.

The majority of the fiscal year 1999 and fiscal year 2000 funding is provided to conduct a submerged launch demonstration to validate the underwater launch design, which would provide cost and technological risk reduction for EMD.

Fiscal year 2001 to fiscal year 2003 funding supports execution of EMD and will refine the hardware and software approaches developed during prior risk reduction efforts through critical design reviews.

Structuring of a complete NTACMS program through procurement in the ongoing POM00 build is at risk due to extreme budgetary pressures.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

LOCKHEED AND NORTHROP MERGER

Question. There has been substantial publicity of late concerning the proposed merger of Lockheed and Northrop and opposition to that plan by the Department of Justice. Northrop is one of the builders of the F/A-18E/F, and Lockheed is one of the two contractors chosen to compete for the Joint Strike Fighter (JSF) design. The merger, if concluded, would leave only three major defense contractors. Do you have any concerns about this loss of competition in the aerospace industry?

Answer. Each of the military services provided the Department of Defense with their individual assessments of this proposed merger. In this process the Navy did express concern in several areas. The Department of Defense's overall position across the full spectrum of defense business is in opposition to the merger.

CVN-77

Question. The Navy is asking for accelerated procurement of CVN-77, the next A/C carrier. Although this is a *Nimitz*-class carrier, it is billed as a "transition carrier" to the CVX, the next class of carriers.

Why is CVN-77 billed as a "transition carrier?"

Answer. CVN-77, the tenth *Nimitz*-class aircraft carrier, has been designated as the "transition ship" to the next generation of aircraft carrier, the CVX. The CVN-77 will incorporate process changes and advanced technologies which will reduce the total ownership cost of CVN-77, as well as provide opportunities for backfit into the previous nine ships of the *Nimitz* class. Under the "transition ship" concept, CVN-77 will also provide opportunities to mitigate technology risk for CVX.

Question. What are the features which will differentiate CNV-77 from other *Nimitz* class carriers?

Answer. The CVN-77 RDT&E program, which commenced in fiscal year 1998, has been structured to identify, evaluate, and select candidate transition technologies for incorporation into the CVN-77 design. Such incorporation would differentiate the CVN-77 from other *Nimitz*-class carriers, although the degree of differentiation would be reduced once the applicable transition technologies are backfit into the previous nine *Nimitz*-class carriers. Currently, the CVN-77 RDT&E program is focusing on the following major investment areas:

Manpower and Material Support.—Manpower Utilization; Ship Maintenance and Operational Support; Preservation and Corrosion Control Training; and Information Management.

Design Tools and Processes.—Modeling and Design Tools; and Producibility.

Hull, Mechanical, Electrical, and Auxiliary.—Auxiliary Systems; Quality of Life; Human Support Systems; Information Systems; and Hull and Structural Systems.

Combat and Intelligence Systems.—Sensors; Communications; Information Management; and Structures and Arrangements.

Aircraft Launch, Recovery, and Support.—Servicing and Maintenance; Weapons Handling; Information Management; Structures and Arrangements; and Launch and Recovery.

Battle Damage Prevention and Recovery.—Damage Control; Hull Protection; and Shock Mitigation Signatures.

Propulsion and Electric Power Generation.—Propulsion Systems; Electric Power Generation and Distribution; and Electrical Auxiliary Applications.

Question. What is the total cost increase for the transition features as compared to the standard *Nimitz*-class carrier?

Answer. The estimate for CVN-77 transition technologies is currently being refined in Navy's POM-00 deliberations.

TRIDENT SUBMARINES

Question. The Navy is reportedly investigating the possibility of converting Trident Submarines to conventional cruise or conventional ballistic missile platforms. What is the status of this proposal? Isn't this an extraordinarily expensive way to deliver a conventional payload?

Answer. Congressional language prohibits removal of any of the 18 Trident SSBN's from strategic service prior to START II ratification. Pending START II ratification, the four oldest Trident SSBN's are planned for removal from strategic service, two each in fiscal years 2002 and 2003.

Right now, the Trident conversion (SSGN) concept is just a concept and not yet a program. No funds have been applied to it in the fiscal year 1999 budget, but the Navy continues to evaluate the concept.

Conversion costs are currently estimated to be approximately \$400 million per ship (includes the refueling overhaul required for 20 additional years of service life), with a one time initial design cost of approximately \$170 million.

QUESTIONS SUBMITTED TO ADM. JAY L. JOHNSON

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

AIRCRAFT CARRIERS

Question. Recognizing the planned capabilities of the Joint Strike Fighter, why not move to a larger number of smaller carriers capable of responding to multiple crisis rather than build \$5 plus billion nuclear aircraft carriers?

Answer. CVX will enter fleet service in 2013. The Navy's carrier based version of the Joint Strike Fighter (JSF) is intended to enter fleet service in 2012. JSF will be a complement to the F/A-18E/F. The Navy carrier version of JSF will not have a vertical takeoff and landing capability; rather, it will employ catapulting for takeoff, and arresting gear for landing, as does the Navy's current inventory of carrier based airplanes. Previous carrier studies have determined that the landing area needed for arrested landings needs to be at least 820 feet long. If we add in a simultaneous launch and recovery requirement, then an angled deck of 820 feet and an overall flight deck length of over 920 feet is needed. In summary, the flight deck size of any proposed CVX is in great part determined by the need to conduct safe and effective flight operations.

CVX R&D

Question. What is the urgency of spending so much R&D money now (\$190 million in 1999) on a new aircraft carrier design—why can't we go at a slower pace?

Answer. The Navy's vision for CVX is to develop a new class of aircraft carrier that significantly reduces total ownership cost and incorporates an architecture for change, while maintaining the core capabilities of naval aviation (high-volume firepower, survivability, sustainability, and mobility). Achieving this vision will require significant design changes to incorporate advances in technology and to focus the design on affordability drivers, since a new carrier has not been designed in over 30 years.

CVX will be commissioned in 2013 to replace U.S.S. *Enterprise* (CVN 65), which will reach the end of its service life at 52 years. Construction must begin in 2006 to meet this commissioning date. The timeline for design and development of a new, more affordable carrier to support required construction start in 2006 necessitates that specific development and design efforts start by fiscal year 1999.

Funding the fiscal year 1999 budget request is critical to initiate key technology development programs having major ship configuration and design impacts. Among these programs are:

Advanced Technology Launcher.—Electromagnetic catapult development will require development of power conversion and control systems. Following component development, land-based testing will be required to ensure safety of flight.

Propulsion Plant Development.—A new, modern propulsion plant requires continued funding in fiscal year 1999 to meet an fiscal year 2006 construction start date. It has been over 30 years since the last carrier propulsion plant design. Funding is needed to incorporate lessons learned over this period of time into a new design.

Advanced Protection Systems.—Survivability of the carrier is achieved through passive features that protect vital ship spaces and are major ship configuration drivers. To keep pace with modern threats, and to limit the weight and space impact of upgraded protection systems, requires development of advanced armor and pro-

tection systems. These systems will require small and full-scale, land-based testing to ensure adequacy against the threat.

Information Integration.—Advanced computing plant architectures will enable significant reductions in manpower and will ensure survivability of the ship's computer-based systems. The information architecture and development of the substantial network control systems are key to fielding this capability. All of the ship control and monitoring systems that will reside on CVX in the future will need to be integrated into this architecture.

Automation for Reduced Manning.—Manpower is the leading driver in ship life cycle cost. Automated systems are key to reducing the shipboard manpower requirement for CVX. Development of automated systems must be undertaken early to enable the ship design to incorporate them. Unless these systems are definable early in the design process, the ship will be designed to accommodate large numbers of personnel and will not be properly arranged to enable backfitting automation into the ship.

Computer Aided Design Tools.—A clean-sheet aircraft carrier design has not been undertaken for over 30 years. Modern, computer based tools must be applied to efficiently engineer, design, test and simulate construction of an aircraft carrier design in the virtual environment to significantly reduce overall product cost.

Question. Based on the AOA performed on the JASSM program, is the Navy committed to procuring the JASSM missile?

Answer. No. The Analysis of Alternatives (AOA) performed for the JASSM program verified all of the Navy's current and forecast air launched Standoff Outside of Area Defenses (SOAD) requirements are met by SLAM-ER+. It is the Navy's intention to continue JASSM development as a joint venture with the USAF to ensure that when the JASSM weapon is fielded it retains the potential ability to be employed by Navy aircraft operating from an aircraft carrier. If at some point in the future, Navy/Joint warfare requirements can be better met through procurement of JASSM, the SLAM-ER+/JASSM procurement mix will be re-evaluated.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

PRIVATIZATION

Question. How did the Navy and the Marine Corps arrive at the number of civilian and military jobs to be eliminated and/or contracted out? Were specific, individual studies performed to analyze the savings and appropriateness of activities to compete? or, was a goal imposed "from the top?" How did the Navy/Marine Corps determine that contracting out saves 20 percent? Why does the Air Force assume different savings? Please provide copies of the analysis you performed to come to the conclusion that 20 percent was the right number.

Answer. The savings reflected in the Navy's FYDP are derived from our expectation that "competition" not "contracting out" will result in significant savings. This expectation is based on research and analysis performed by the Center for Naval Analysis (CNA). CNA reviewed our experience implementing OMB Circular A-76 in the 1980's and found that "competition", not "contracting out", resulted in cost savings of approximately 30 percent, regardless of the outcome of the cost comparison. As a matter of interest, approximately half of the functions studied remained in-house after the competition, albeit in a more streamlined, efficient organization. CNA also reviewed the Navy's inventory of commercial activities and determined that conducting cost comparisons of activities involving approximately 80,000 full-time equivalents would yield the kind of savings we have incorporated into the Navy's FYDP. The CNA analysis formed the basis for Navy's competition savings projections. I cannot address the Air Force's savings assumptions, but I will be happy to provide you with a copy of CNA's analysis that forms the basis of our estimate that competition yields average savings of 30 percent.

Question. With fewer military personnel and DOD civilians after all this contracting out, what will be the impact on overseas rotation and "perstempo" problems?

Answer. I need to reiterate that we are interested in increasing "competition" not "contracting out." Our policy provides a structured check and balance system between military manpower requirements and proposed shore infrastructure reductions for regionalization, outsourcing or privatization initiatives to ensure that our military readiness is not adversely affected. The need to maintain a sea-to-shore rotational base, along with the need to maintain certain critical skills, has indeed limited our ability to compete certain military-intensive functions. For this reason, the Navy's plan to achieve the savings reflected in this budget focuses on competing civilian-intensive functions.

Question. How will the Navy and the Marine Corps monitor and document the progress in achieving your outsourcing programs and achieving the planned savings? How will these data be confirmed by an outside party?

Answer. Again, I need to reiterate that we are conducting a “competition” program, not an “outsourcing” program. Navy generally relies upon the cost comparison process established by OMB Circular A-76 to ensure that our competitions result in the most cost effective outcome. Circular A-76 not only provides rigorous guidelines for identifying the costs of both in-house and private sector performance but it also incorporates an independent review process and provides all affected parties with an independent appeal process. The independent reviews will be conducted by both independent contractors familiar with the commercial activity studies and by in-house Navy auditors. Actual savings of the competition will include both personnel and other operating costs. To monitor and document our progress in achieving the planned “competition” savings, Navy has established an annual reporting system. This system will track actual costs for five years subsequent to the implementation of the cost comparison decision. Savings conformance will be determined by an analysis of actual total operating costs against planned total operating costs. Based on our past experience, we expect actual costs to track well with the cost comparison estimates. In addition to review by the independent reviewing official, the appeals officer, and all other interested parties during the cost comparison phase, cost comparison data will be available for public scrutiny and external review by the Naval Inspector General, the Naval Audit Service, the DOD Inspector General, the General Accounting Office, and other interested parties.

Question. What actions do you plan if the savings do not materialize as planned? More outsourcing? Cuts in procurement? Force structure? Readiness?

Answer. Failure to achieve the projected savings would have a serious impact on our ability to fund our modernization program without taking vertical cuts that would jeopardize other existing requirements. To limit the risk of jeopardizing other requirements and to ensure we meet the savings projected in the FYDP, we are also aggressively pursuing related cost savings initiatives such as regionalization, privatization, community use and public-private ventures.

READINESS

Question. What do your latest, 1998, data show about pilot retention? Is it getting better or worse? Is it better or worse for married pilots? With families? What are the socio-economic profiles of the pilots leaving? Staying?

Answer. The Navy’s two primary predictors of pilot retention, resignations and Aviation Continuation Pay (ACP) take rates, demonstrate that pilot retention continues to be on the decline. Pilot resignations increased from 414 in fiscal year 1997 to 540 in fiscal year 1998, while fiscal year 1998 ACP take rates, as shown in Table 1, were much lower than required.

TABLE 1.—FISCAL YEAR 1998 ACP PROGRAM

Aviation subcommunity	Aircraft type	Bonus amount	Number required	Number eligible	Eligible applied	Percent eligible applied	Percent of goal
VFA Pilot	F/A-18	\$17,000	23	81	11	14	48
VF Pilot	F-14	17,000	13	62	4	6	31
VAQ Pilot	EA-6B	19,000	14	28	3	11	21
VS Pilot	S-3	19,000	15	32	2	6	13
VAW/VRC Pilot	E-2/C-2	10,000	17	58	7	12	41
Carrier Pilot Take Rate			82	261	27	10	33
VP Pilot	P-3	10,000	46	200	44	22	96
Prop Pilot Take Rate			46	200	44	22	96
Pilot Take Rate			128	461	71	20	55

This year only 10 percent of eligible carrier pilots—33 percent of required—applied for ACP agreements that obligated them through 14 years of commissioned service. This take rate, lowest in program history, is a sound predictor that critical department head billets will not be filled since those that have not signed an agreement are free to leave the Navy. These two indicators of resignations and take rates together highlight a continued trend of low pilot retention. The Navy does not track

retention by socio-economic profiles such as retention for those married or with families.

Question. What are the specific complaints of pilots leaving the Navy?

Answer. Table 2 list “reasons for leaving” as cited by Naval Aviators on fiscal year 1997 exit surveys. It is noteworthy that no requirement exists to complete an exit survey, and if a survey is completed, it is typically one of the final items an aviator completes prior to leaving the service. Hence, it is not always afforded the proper effort.

TABLE 1.—*Reasons for Leaving the Navy Cited by Pilots in Fiscal Year 1997 Exit Surveys*

<i>Reason for Leaving</i>	<i>Percent Citing</i>
Family Separation	20
Promotion Opportunity	14
Quality of Leadership	12
Amount of Sea Duty	8

NOTE.—These results were compiled from 126 completed exit surveys; the number represents only 30 percent of the aviators who resigned in fiscal year 1997. Additionally, the CNO’s Aviation Retention Team compiled the below list of reasons for resigning.

These anecdotal reasons were heard from direct discussions with the fleet during visits by the team to various aviation commands: Increased amount of family separation; Frustration with Navy leadership; High operational tempo; Inadequate funding to support operations; Erosion of compensation/benefits; Reduced promotion opportunity; and Inadequate infrastructure.

Question. Which of your “quality of life” programs are working? Which are not? Which generate the best pay-off in terms of retention? Please provide the data and analysis to substantiate your answer, or are you using judgment or anecdotal evidence to assess the degrees of success or failure? Does the Navy have any studies on these issues? By independent organizations? Please provide copies.

Answer. I’ve just received the results of the 1997 BUPERS QOL survey that asked a representative sample of Sailors about their perceptions and use of 29 of our QOL programs. Their answers tell us that most of our QOL programs are working, in terms of both readiness and retention.

When we asked Sailors to rank those programs that they feel contribute the most to their readiness, officers cite as their top three: (1) Tuition Assistance (TA)—47 percent; (2) Morale, Welfare, and Recreation (MWR) Sports and Fitness Ashore—46 percent; and (3) MWR Recreational Activities Ashore—33 percent.

The top three programs for maintaining readiness among enlisted are: (1) TA—60 percent; (2) Montgomery GI BILL (MGIB)—51 percent; and (3) MWR Recreational Activities Ashore—32 percent.

Regardless of pay grade, MWR and Voluntary Education (VOLED) programs have the greatest impact on readiness.

When we examine QOL program use and quality, we see that MWR Recreation Activities Ashore (Officer—85 percent, Enlisted—85 percent), MWR Sports and Fitness Ashore (Officer—84 percent; Enlisted—85 percent), and Navy Campus Education Centers (Officer—37 percent; Enlisted—61 percent) are most frequently used. QOL programs with the highest quality ratings are: TA (78 percent); MGIB (77 percent); and Navy Campus Education Centers (70 percent). We’re especially pleased that 25 of 29 QOL programs were rated “good” or “very good” by a majority of our Sailors.

Out of 29 QOL programs that were rated, four did not receive a “good” or “very good” assessment: (1) Spouse Employment Assistance (39 percent); (2) Single Sailor Program Ashore (42 percent); (3) Good Relationships, Strong Marriages, and Healthy Families (49 percent); and (4) Outreach and Command Representative Program (50 percent).

These programs are relatively new, and many of our Sailors may not be as familiar with them as some of our more established efforts. As an example, our Single Sailor Program Ashore had been implemented for only a short time when we mailed out the survey. Additional public relations efforts and time for these programs to mature may improve their viability over the long term.

When we asked respondents about a particular program’s quality, we also asked why they might not have used the program. The majority of respondents (Officer—88 percent, Enlisted—79 percent) told us that they didn’t feel a need for the program. Only 3 percent of officers and enlisted indicated that they preferred off-base programs to our QOL programs.

Some programs haven’t been well publicized. The least recognized programs among officers included the Chaplains Religious Enhancement Development Oper-

ation (CREDO) (15 percent), Relationships, Families, and Marriages (13 percent), and the Volunteer Program (12 percent), while enlisted reported less recognition for Academic Skills (26 percent), CREDO (25 percent), Outreach/Command Representative Program (22 percent), and Single Sailor Ashore (20 percent).

Sailors report that MWR and VOLED programs most significantly affect their retention decision. When asked, "Would you reconsider your decision to remain in the Navy if programs were reduced or eliminated," officers rated TA (14 percent), MGIB (11 percent), and MWR Sports and Fitness Ashore (10 percent) while enlisted rated TA (27 percent), MGIB (20 percent), and Navy Campus Education Centers (12 percent) as the top three programs affecting their retention decision. Both our officers and enlisted are telling us that educational opportunities and fitness programs strongly contribute to our retention successes.

A recently completed study by the Center for Naval Analysis (CNA) on the "Effectiveness of the Navy's Voluntary Education Program" has told us that participation in off-duty education programs has a clear relationship to both promotability and retention. Sailors who accumulate college credits have a significantly higher probability of making E-5 in five years. For example, if a Sailor takes even 15 credit hours of college work, he or she has a 43 percent probability of making E-5 in five years; with 30 credit hours, the probability increases to 51 percent. College participants have a significantly higher reenlistment rate. As credits accumulate, the probability of first reenlistment increases. The CNA study also examined the program's cost effectiveness. Investment in Academic Skills improvement provides a dramatic return of between \$9 to \$22 for every Navy dollar invested in the program in reduced recruiting and training costs. Overall, the VOLED program is clearly very cost effective.

I also spend a fair amount of time visiting the Fleet, looking at our programs and talking to Sailors who let me know how important they are to them. The data from these surveys supports what I've seen and heard—we need these programs, not only to maintain personal readiness, but also to retain our quality Sailors.

Our most recent data on QOL programs is presented here, though the report on the findings of the 1997 QOL Survey is pending. NPRDC is a Navy personnel research laboratory that is staffed primarily by civilian research psychologists. Although NPRDC research psychologists work with some guidance from Navy/BUPERS sponsors, they maintain their scientific integrity. I have provided you with copies of both the 1997 QOL Survey briefing as well as the CNA VOLED briefing.

Question. What changes have been occurring in spouse, child, and substance abuse for the past two years? Please differentiate between officers and enlisted, length of service, and among major military specialties and PERSTEMPO rates. What is the role of the current high PERSTEMPO in any changes in family or substance abuse? Please provide copies of any analysis you have of the relationship.

Answer. There have been no significant changes in spouse and child abuse for the past two years. We have no evidence or indication that rank, rate, length of service or military specialty have had any direct impact on incidence rates of child or spouse abuse. Data from the Navy Central Registry shows the following:

	Fiscal year—				
	1997	1996	1995	1994	1993
Spouse Abuse:					
Incidents reported	3,357	3,424	5,228	6,057	6,344
Substantiated	2,493	2,558	3,586	4,053	4,277
Rates of spouse abuse incidents reported per 1,000 spouses	16.3	13.9	22.4	24.5	25.5
Child Abuse:					
Incidents reported	2,606	2,435	3,822	4,122	5,368
Substantiated	1,567	1,356	1,747	1,967	2,179
Rates of child abuse incidents reported per 1,000 children	7.8	7.1	10.5	13.8	13.5

Navy abuse incident reports leveled off and decreased in fiscal year 1993, fiscal year 1994, fiscal year 1995 and fiscal year 1996. We believe this is due not only to downsizing, but also to improved screening of cases with our Risk Assessment Model. It may well be that fear of career consequences has decreased reporting, as

indicated by the Abuse Victim Study which was required by the Defense Authorization Act for Fiscal Year 1993 (Public Law 102-484).

In general, substance abuse in the Navy has declined in the past 18 years. We credit our aggressive prevention and deterrence efforts, to include education, providing healthy alternatives and a vigorous drug-testing program. In contrast to the post-Vietnam era, our culture, with respect to drug abuse, is one of "Zero Tolerance." The goals of our urinalysis program have always been to deter and detect drug abuse, as well as provide data on the prevalence of drug abuse. We've been quite successful—the proportion of sampled servicemembers testing positive for drugs has fallen from approximately 7 percent in 1983 to less than 1 percent in recent years, with no changes in drug abuse trends over the past two years. Alcohol abuse has shown a similar decline. In 1982, 41 percent of Navy personnel reported "loss of productivity" (late for work, missing work, etc.) because of alcohol abuse. That number, while still too high, declined to 20 percent in 1995. We anticipate that DOD's Worldwide Survey on Substance Abuse, currently in progress, will show additional reductions in fiscal year 1996 and fiscal year 1997.

In fiscal year 1996 and fiscal year 1997, our urinalysis positivity rate remained below 1 percent. In those years, officers accounted for less than .05 percent of all positive samples and enlisted personnel ages 25 and under accounted for approximately 70 percent of all positive samples. Historically, first term personnel account for the majority of all positive urinalysis samples. PERSTEMPO does not appear to influence our rates of substance abuse.

In the last two years, we've implemented testing of all Navy applicants at Military Enlistment Processing Stations (MEPS) upon entry into the Delayed Entry Program (DEP). The result has been approximately 4 percent of all applicants tested positive for drug abuse. Our Navy Drug Screening Labs (NDSL's) also began using a better THC chemical reagent that is more sensitive to a broader range of THC metabolites. The result has been an increase of approximately 700 additional urine samples testing positive for THC in fiscal year 1997 over fiscal year 1996. We've also revised our Self-Referral for Drug Abuse Policy so that it protects Navy's investment in training and experience by preventing fraudulent use of the self-referral program, while it continues to help those who have been diagnosed as drug dependent. Also, we've implemented an Inhalant Abuse Policy to establish guidelines for processing personnel who abuse inhalants for administrative separation.

Other important initiatives include implementation of Urinalysis Program Coordinator Training to standardize our urine specimen collection and submission procedures. We have distributed software that helps commands better manage their urinalysis programs and track substance abuse trends. We've also upgraded our Navy Drug Resource Website (NAVDWEB) with improved graphics, easier instructions, and more information.

In alcohol abuse prevention efforts, we introduced our "Right Spirit" Alcohol Abuse Prevention and Deglamorization campaign in March of 1996. This campaign tightens policy, eliminates waivers for underage drinking in certain locales, increases education and training, and establishes prevention education detachments in San Diego and Norfolk.

Chart 1 shows alcohol and drug abuse trends by age and pay grade. Heavy drinking is defined as five or more drinks in one setting at least once a week.

[Past 12 months]

Characteristic	Percent Illicit Drug Abuse	Percent Heavy Drinkers
Age:		
20 and under	16.6	29.8
21-25	10.3	26.6
26-34	4.8	15.4
35 and older	3.0	9.3
Pay Grade:		
E1-E3	15.9	32.4
E4-E6	6.1	18.2
E7-E9	2.0	11.4
W1-W5	2.8	9.5
O1-O3	2.7	6.1
O4-O10	1.2	2.0

Source: Department of Defense Worldwide Survey of Health Behaviors for Military Personnel.

There is no direct evidence that "downsizing" and an increased PERSTEMPO have contributed to increased spouse, child, or substance abuse. We have noted that personal childhood experiences, learned behavior patterns, and individual psychological factors appear to influence more directly the incidence of child or spouse abuse. Situational family stress, such as work stress, is not a strong predictor of child or spouse abuse, although it could increase risk when occurring in context with the known risk factors I mentioned.

While we have not noted a relationship between increased PERSTEMPO and increased substance abuse, we do recognize that there are warning signs that we must closely monitor.

Alcohol and drug abuse patterns differ among certain socio-demographic groups and environmental conditions. We know that alcohol and drug abuse is often more common and heavier among younger persons, males, and the less educated. Navy, like the other military Services, is largely made up of this high risk (male, 17 to 25) population. In addition to age, sex and education, marital status and pay grade are risk factors. Single Sailors or those who are married without their spouse present are more likely to abuse alcohol. Those in pay grades E1-E3 and O1-O3 are five times more likely to abuse alcohol or drugs than senior enlisted and officers. Isolated duty and long deployments are also high risk factors.

The above data was taken from the 1995 survey. Current Navy data shows a trend of decreasing incidents, particularly in drinking and driving incidents and injuries. Discharges because of alcohol or drugs have not changed. In short, we have not seen evidence of an upturn of substance abuse because of PERSTEMPO.

F-18E/F

Question. (a) In 1998 dollars, what is the current total program unit cost for a F-18E, and F-18F? For the C/D (Lot 19) models? (Please include all RDT&E, MilCon, and Procurement costs.)

(b) What total program unit cost, in 1998 dollars, did the Navy project in 1993 for the E/F?

(c) Please cite all performance goals stated in 1993 and what changes, up or down, have occurred up to the present time on all issues, including range, acceleration, maneuverability, and radar cross section. Is any consideration being given at this time to changing or dropping any of these or other performance criteria?

(d) Please cite the flight test results for each of these criteria.

Answer. (a) Unit procurement cost for the "E" and "F" (APN 1 and 6) for 548 A/C procured as per the fiscal year 1999 President's Budget are:

"E" equals \$63.875 million/Unit in fiscal year 1998 dollars.

"F" equals \$65.692 million/Unit in fiscal year 1998 dollars.

E&MD (fiscal year 1998 dollars) equals \$5,870.1 million as of the fiscal year 1999 President's Budget. Amortize this over 548 units:

"E" equals \$10.712 million/Unit in fiscal year 1998 dollars.

"F" equals \$10.712 million/Unit in fiscal year 1998 dollars.

Total unit procurement cost including APN 1, 6 and E&MD for the "E" and "F" are:

"E" equals \$74.587 million/Unit in fiscal year 1998 dollars.

"F" equals \$76.404 million/Unit in fiscal year 1998 dollars.

This assumes that items such as support, spares, non-recurring and E&MD costs are amortized equally across all units and the variants.

The C/D Lot 19 A/C were procured in fiscal year 1995. As of the fiscal year 1999 President's Budget, the unit costs for the "C" and "D" (APN1 and 6) are:

"C" equals \$45.372 million/Unit in fiscal year 1998 dollars.

"D" equals \$46.946 million/Unit in fiscal year 1998 dollars.

E&MD (fiscal year 1998 dollars) equals \$5,341.5 million as projected from the fiscal year 1996 C/D SAR approved program (APB) information. Amortized over 1,027 USN units:

"C" equals \$5.201 million/Unit in fiscal year 1998 dollars.

"D" equals \$5.201 million/Unit in fiscal year 1998 dollars.

Total unit procurement cost with APN 1, 6 and E&MD for the "C" and "D" are:

"C" equals \$50.573 million/Unit in fiscal year 1998 dollars.

"D" equals \$52.147 million/Unit in fiscal year 1998 dollars.

(b) Using the 92 DAB estimate and the escalation at that time, the unit procurement cost for 1,000 E/F aircraft including both APN 1 and 6 was: Unit procurement cost equals \$61.198 million/Unit in fiscal year 1998 dollars.

E&MD (fiscal year 1998 dollars—escalation at that time) as estimated at the 92 DAB amortized over the projected 1,000 A/C was: Unit E&MD cost equals \$6.001 million/Unit in fiscal year 1998 dollars.

Total Unit Procurement Cost including APN procurement (1 and 6) and E&MD was: Total unit procurement cost equals \$67.199 million/Unit in fiscal year 1998 dollars.

(c) There is no consideration being given at this time to change or drop any Key Performance Parameter (KPP). Attached are the KPP parameters for the F/A-18 E/F. The objective and threshold values represent our ORD requirements. Since 1993 the only change to the ORD was to incorporate performance requirements for the F version. Originally F-18F performance was to be a fallout since it was only to be used as a trainer. With the decision to replace the F-14 with the F-18F, performance requirements were established. (See the Key Performance parameter enclosure. In those KPP's with multiple entries (e.g., Interdiction Mission Radius, Recovery, Payload, Specific Excess Power, etc.) the first entry is the "E" value and the second is the "F" value.) The launch wind over deck definition was also changed and based on larger Max Takeoff Gross Weight rather than the lower Typical Combat Gross Weight. This added 4,000 pounds to the calculation used to determine launch wind over the deck requirements for the airplane. This, in effect, increased the KPP requirement. Even within this more stringent requirement we have margin. The status numbers presented reflect flight test results collected to date. This performance data was collected, reviewed and validated during OT-IIA. Radar Cross Section is classified; however flight testing has been done and the aircraft meets specified requirements.

(d) On the enclosure (Key Performance Parameters), the status numbers reflect flight test results collected to date. This performance data was collected, reviewed and validated during OT-IIA.

Question. A recent draft GAO report lists 420 technical deficiencies in the F-18E/F. What is your cost and time estimate to resolve all these with no sacrifice in any performance criterion?

Answer. Current funding and schedule provide sufficient resources to correct all deficiencies requiring correction to support a successful OPEVAL. All of the corrective actions are being tracked individually and cumulatively for impact to performance, and all Key Performance Parameters are being met with margin to spare.

Question. In 1993, Naval Air Systems Command compared the performance of the A and C models of the F-18 to the goals of the E model. See table below. Please provide data from flight test results to compare actual F-18E performance to the original goals and to the specified earlier F-18's.

	Initial F-18A Speci- fication	F-18A (Lot 1 FSD)	F-18C (Lot 14)	F-18C (Lot 15)	F-18C (Lot 19)	F-18E goal in 1993	F-18E flight test re- sults
Escort Range (NM)	420	319	302	.....	.....	356	.....
Interdiction Range (NM)	618	437	398	.....	.....	501	.....
Accel (sec.) 0.8 to 1.6 mach	98	144	180	.....	.....	153	.....
Specific Excess Power(Ps) (Ft./Sec.) at 1, 3, and 6 Gs .....				.....	.....
Approach speed (kts.)	128	140	142	.....	.....	144	.....

Answer. Provided here within the chart below:

	F/A-18E ORD	F/A-18A Lot 1 FSD	F/A-18C				F/A-18E		Flight test re- sults
			Lot 12	Lot 14	Lot 15	Lot 19	DAB March 1992	PDR June 1993	
Fighter Escort Radius (NM)	410	362	343	341	331	330	420	423	434
Interdiction Radius (NM)	430	415	376	374	370	369	520	504	512
Accel'tion (sec) 0.8M to 1.2M, 35K	70	55	58	58	57	57	60	67	67
Specific Excess Power, Ps (fps) 1g @ 0.9M, 10K	600	617	599	599	699	695	637	639	661
Approach Speed (kts)	150	140	146	146	146	146	144	145	142

Note.—The ground rules for defining performance specifications have changed over time. The rules for the F/A-18A and the F/A-18E are different. For example, the flight profile for measuring Interdiction Radius was different for the F/A-18A than it is for the F/A-18E. The table above uses the F/A-18E rules, which have been applied to the other variants for consistency. This is why column one was changed to F/A-18E ORD vice F/A-18A specification.

Question. Please state your view on the media coverage about the F/A-18E/F “wing drop” problem and about comparisons of E/F performance to earlier models of the F-18.

Do you believe it useful or important for the public to be informed of these issues?

Answer. Yes, the Department of the Navy fully complies with the Principles of Information as established by the Department of Defense (see attached).

Question. Please provide copies of Navy testimony or printed reports to Congress or the public identifying the “wing drop” problem before the first instance of its being reported in the media.

Answer. Neither printed reports nor Navy testimony were requested by Congress or the public prior to initial reporting in the media. However, wing drop was included in a list of technical issues to be solved in flight test during a briefing to Senator Russell Feingold (D-WI) in a visit to NAS Patuxent River, Maryland, in May 1997. For informational purposes, provided are an F/A-18E/F Wing Drop Awareness Chronology dated February 16, 1998 and responses to questions submitted by Mr. Creighton Greene, Professional Staff Member, Senate Armed Services Committee, in December 1997.

Question. Why does the Navy compare the E/F to the lower performance (i.e. Lot 12 version of the C/D model rather than the current (i.e. Lot 19) version? Please present a comparison of the C/D Lot 12 to Lot 19 on all significant performance criteria.

Answer. The attached chart provides the comparison of Lot 12 to Lot 19. As the Navy developed the ORD in 1991, to support the Defense Acquisition Board in 1992, the current version of the F/A-18C/D was the Lot 12. Therefore, the Lot 12 F/A-18C/D was used to develop the performance baseline for the F/A-18E/F. Newer Lots were planned at the time but their performance parameters had not been defined.

	F/A-18E ORD	F/A-18A Lot 1 FSD	F/A-18C				F/A-18E		
			Lot 12	Lot 14	Lot 15	Lot 19	DAB March 1992	PDR June 1993	Flight test re- sults
Fighter Escort Radius (NM)	410	362	343	341	331	330	420	423	434
Interdiction Radius (NM)	430	415	376	374	370	369	520	504	512
Accell'tion (sec) 0.8M to 1.2M, 35K	70	55	58	58	57	57	60	67	67
Specific Excess Power, Ps (fps) 1g @ 0.9M, 10K	600	617	599	599	699	695	637	639	661
Approach Speed (kts)	150	140	146	146	146	146	144	145	142

Note.—The ground rules for defining performance specifications have changed over time. The rules for the F/A-18A and the F/A-18E are different. For example, the flight profile for measuring Interdiction Radius was different for the F/A-18A than it is for the F/A-18E. The table above uses the F/A-18E rules, which have been applied to the other variants for consistency. This is why column one was changed to F/A-18E ORD vice F/A-18A specification.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

TACTICAL TOMAHAWK

Question. Admiral Johnson, my understanding is that if funding for the Tactical Tomahawk program were approved, the Navy would forgo the procurement of approximately 100 missiles. In 1996, Admiral Murphy indicated that surface ships were being deployed with only 75 percent of their VLS tubes filled. If the Navy proceeds to develop the Tactical Tomahawk program without procuring additional cruise missiles, how would you assure operational requirements be met?

Answer. The Navy will rely on an existing inventory of approximately 2,800 Block II/III missiles to meet operational requirements. There will only be a 25 month period between when the last Block III missile is contracted for delivery (September 1999) and when the Tactical Tomahawk production line starts (October 2001).

VERTICAL REPLENISHMENT HELICOPTER

Question. It is my understanding that the Navy concluded the Vertical Replenishment Helicopter demonstration this past January. Do both the CH-60 and commercial alternatives provide the same mission capabilities?

Answer. The CH-60 Vertical Replenishment (VERTREP) demonstration went very well. The prototype aircraft successfully demonstrated several phases of the combat logistics mission to include: VERTREP, Vertical On Board Delivery (VOD), and amphibious Search and Rescue (SAR).

The CH-60 provides significantly more mission capability than any of the commercial helicopters the Navy has demonstrated. It has a very robust lift capability, the ability to carry 13 passengers, internal cargo, and possesses an extremely good coupled hover capability for SAR.

The comparative capabilities of the CH-60 and the commercial alternatives tested by the Navy are as follows:

	CH-46	CH-60	K-MAX	BELL 212	BELL 214 SX
VERTREP (Day/Night) (D/N)	YES/YES	YES/YES	YES/NO	YES/YES	YES/YES
	4,000 LBS	9,000 LBS	6,000	3,000 LBS	6,000 LBS
INTERNAL CARGO	4,000 LBS	9,000 LBS	500 LBS	3,000 LBS	3,000 LBS
PASSENGER CAPACITY	16	13	NONE	8	8
SAR (D/N)	YES/YES	YES/YES	YES ¹ /NO	YES/NO	YES/NO
MEDICAL EVACUATION (D/N)	YES/YES	YES/YES	NO/NO	YES/YES	YES/YES

¹ K-MAX SAR capability is limited to Day-Visual Flight conditions only.

CH-60 HELICOPTER PROGRAM

Question. In the President's fiscal year 1999 budget, the Navy requested \$12.7 million in RDT&E and \$139.9 million in aircraft procurement for 4 CH-60 helicopters. Is that sufficient or are additional funds required to accelerate the program?

Answer. The funding is sufficient to procure four helicopters.

QUESTION SUBMITTED BY SENATOR JUDD GREGG

SHIP DEPOT MAINTENANCE FUNDING

Question. Active ship depot maintenance was funded at 96 percent of the requirement in fiscal year 1998 and in fiscal year 1999 this funding drops to 91 percent of the requirement.

What is the effect on readiness of this unfunded requirement? What type of equipment or ships will not be maintained?

Answer. With current funding levels, all maintenance required to support ship mission capabilities is accomplished. While mission essential maintenance and repairs to correct safety deficiencies are always completed, deferred or non-accomplished maintenance includes quality-of-life improvements, investments in new technology, and some maintenance tasks that simply improve system performance or restore design operating parameters. Considering ship maintenance in the overall Navy budget, current funding levels ensure ship material readiness to successfully complete the mission, with a requirement to manage a level of risk for deferred work.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

F/A-18E/F AND JOINT STRIKE FIGHTER [JSF]

Question. The current projected cost for the F/A-18E/F is \$47 million per copy, and the projected cost for the JSF is just under \$40 million in today's dollars (\$32 to \$36 million projected in 1994 dollars).

Does the Navy believe that the JSF will materialize as a carrier-suitable aircraft?

Answer. Yes. The current JSF development process shows great promise in delivering new technologies and manufacturing processes that will lead to a more affordable product.

Question. Does the Navy believe that the JSF will come in at the projected cost?

Answer. The centerpiece of the JSF Program is affordability. This demands a new way of doing business, and JSF is accomplishing that. The program has used, from its inception, principles such as Cost As an Independent Variable (CAIV) to balance weapon system capability against its life cycle cost. The JSF is effectively achieving such a balance through the use of Cost and Operational Performance Trades (COPT); investing in key technologies; emphasizing design, manufacturing and support initiatives; and leveraging the benefits of commonality to reduce the total ownership cost to the warfighter.

Question. Long-term, will the F/A-18E/F be cheaper and a better aircraft for the Navy than the JSF?

Answer. The current program estimates of recurring flyaway costs for the F/A-18E/F and the JSF (fiscal year 1997 dollars) are \$47 million and \$33 to \$40 million respectively. The goal of the JSF program is to provide additional capability that will complement the capabilities of the F/A-18E/F at an affordable price.

Question. Does the Navy want the JSF if it comes in at over \$40 million per copy, or would it prefer more F/A-18E/F's?

Answer. The current estimate of the JSF carrier variant is well below \$40 million and within the range of the \$31 to \$38 million (fiscal year 1994 dollars) total cost goal. The goal of JSF is to provide additional capability that will complement the capabilities of the F/A-18E/F at an affordable price. There are no indications at this time that JSF will not meet its cost target.

QUESTIONS SUBMITTED TO GEN. CHARLES C. KRULAK

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

LHA SERVICE LIFE EXTENSION

Question. What is your thinking about the service life of LHA ships?

Answer. My view is that it is wiser to procure new LHD's vice refurbishing our LHA's. The LHD is larger, has more carrying capability, and can better accommodate our new technology systems that have been fielded in recent years or will soon be added to our force. In short, it will carry more tanks, aircraft, assault vehicles, and LCAC's than its LHA predecessor.

As currently planned, the LHA service life extension, if initiated, would start in fiscal year 2005. Current estimates for the service life extension program (SLEP) range from \$800 million to \$1.2 billion. The estimated cost of a new LHD (modified) in fiscal year 2005 is \$2.3 to \$2.5 billion. (This estimate includes approximately \$750 million to restart the production line.) The cost of a new LHD in fiscal year 1999 would be approximately 20 to 40 percent more than the cost of the LHA service life extension, and would provide the Nation with a much more capable LHD that would complement our forward presence forces for 40 years, as opposed to the 15 to 20 years gained with a service life extension. We need to engage this issue actively so a solution can be implemented before the end of the LHA's planned service life. I am working with the Chief of Naval Operations on this important requirement.

Big deck amphibious ships are at the heart of the Navy-Marine Corps team. Building a new LHD, more capable of accommodating leaps in technology and expansion of equipment, would be a most welcome initiative.

Question. Using "ball-park" figures, about how much does an LHA service life extension cost? How does this compare to the cost of construction of a new LHD ship, in similar year constant dollars?

Answer. As currently planned, the LHA service life extension, if initiated, would start in fiscal year 2005. Current cost estimates range from \$800 million to \$1.2 billion. Estimated cost of a new LHD (modified) in fiscal year 2005 is \$2.3 to \$2.5 billion.

lion. This estimate includes approximately \$750 million to restart the production line.

Question. Would you be in favor of Congress adding some or all of the \$1.3 billion required to construct a new LHD ship in fiscal year 1999 rather than to perform an LHA service life extension in 2003?

Answer. I believe procurement of a new LHD is a wiser investment for our Nation than refurbishing our oldest LHA. The LHD is larger, has more carrying capability, and can better accommodate our new technology systems that have been fielded in recent years or will soon be added to our force. In short, it will carry more cargo, more aircraft, and more LCAC's than its LHA predecessor.

Big deck amphibious ships are at the heart of the Navy-Marine Corps team. Building a new LHD, more capable of accommodating leaps in technology and expansion of equipment, would be a most welcome initiative when topline constraints permit such an inclusion. I would ask however, that financing this requirement not come at the expense of other programs financed in the Department's fiscal year 1999 request. I am working with the Chief of Naval Operations on this important requirement and will continue to do so as we develop future budgets.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

PRIVATIZATION

Question. How did the Navy and Marine Corps arrive at the number of civilian and military jobs to be eliminated and/or contracted out?

Answer. The Marine Corps has committed to a number of Full Time Equivalents for competitive review (5,000). We have not determined the number of jobs, either military or civilian, which will be eliminated and/or contracted out. This will be determined by the results of the competition.

Question. Were specific, individual studies performed to analyze the savings and appropriateness of activities to compete? Or, was a goal imposed "from the top?"

Answer. Reviewing historical information, the Defense Science Board found that savings could be gained through the competitive process of all base commercial activities (those functions which could be performed by a commercial provider). The commercial activities which will be competed by the Marine Corps will be chosen by both headquarters and installation commands after analysis of requirements (operational and manpower) to determine which functions are inherently governmental and therefore remain in-house. The A-76 process, as set forth by OMB, tracks initial savings from the competition. The Marine Corps will utilize Activity Based Costing to track costs over time for both in-house and contract accomplishment.

Question. How did the Navy/Marine Corps determine that contracting out saves 20 percent? Why does the Air Force assume different savings? Please provide copies of the analysis you performed to come to the conclusion that 20 percent was the right number.

Answer. The Marine Corps is assuming 30 percent savings if a commercial contractor successfully wins an A-76 competition. If the in-house Most Efficient Organization wins, savings are assumed to be 20 percent. These figures are based on the Defense Science Board analysis of historical information which is on file with the Secretary of Defense. The Marine Corps cannot comment on the Air Force's assumed savings rate.

Question. With fewer military personnel and DOD civilians after all this contracting out, what will be the impact on overseas rotations and "perstempo" problems?

Answer. The Marine Corps is looking into the effects of competitive sourcing on rotational assignments. However, these effects should be minimal given our clear distinction between garrison and Fleet Marine Force units. The Marine Corps will not execute a program which negatively impacts our warfighting capability.

Question. How will the Navy and Marine Corps monitor and document the progress in achieving your outsourcing programs and achieving the planned savings? How will these data be confirmed by an outside party?

Answer. The Marine Corps is implementing activity based costing within facilities maintenance and logistics aboard its U.S. bases. This will establish a baseline cost for those related base commercial activities within two areas which produce approximately 70 percent of installation operating costs. These baseline costs can then be compared to either the A-76 cost comparison process generated most efficient organization costs and/or commercial sector contract offers.

We expect agencies outside the Marine Corps, such as the Naval Audit Service, DOD IG, and GAO will analyze our processes, assumptions and competition results.

Question. What actions do you plan if the savings do not materialize as planned? More outsourcing? Cuts in procurement? Force structure? Readiness?

Answer. If actual savings returns differ from planned assumptions, budgets will be adjusted based on the shortfalls. Since savings are produced by increasing efficiencies in the supporting establishment and those savings are to be applied to procurement modernization; the effects, for the Marine Corps, of less than anticipated savings, would be a decrease in procurement and an increase in Operation and Maintenance.

READINESS

Question. What do your latest, 1998, data show about pilot retention? Is it getting better or worse?

Is it better or worse for married pilots? With families? What are the socioeconomic profiles of the pilots leaving? Staying?

Answer. As of March 16, there have been 70 fixed wing pilot resignations in fiscal year 1998. These figures and the trend for the year are well below the fiscal year 1997 rate (92) and slightly higher than the fiscal year 1996 rate (69) as of March of each year.

We do not track pilot resignations by single/married/divorced categories. Current percentages of overall USMC Officers (O-3 and O-4) include the following: 80 percent Married, 4 percent Divorced, and 16 percent Single. There is no common thread to the socioeconomic profiles of the pilots leaving or staying.

All pilots are now eligible for the Aviation Continuation Pay (ACP) program making them the highest paid company/field grade (O-3 and O-4) officers in the Marine Corps.

Question. What are the specific complaints of pilots leaving the Marine Corps?

Answer. In September 1997, an Aviation sponsored briefing team, composed of junior field grade officers traveled to both coasts to visit ready rooms and talk to aviators about the facts and myths of a career as a Marine aviator. Aviators provided the team with frank discussion and openly voiced their concerns. There was no single reason that influences an aviator's decision to resign. The major reasons cited to the briefing team for leaving the Corps include the following: (a) Increased airline hiring rates—easily gain employment—greater family stability; (b) deployed time away from the family; (c) desire to fly more hours (AV-8B and CH-53 concerns); (d) excessive time participating in Joint/Interservice/Intraservice Exercises which provide limited training value for individual pilot skills; and (e) uncertainty about future military downsizing.

Question. Which of your quality of life programs are working? Which are not? Which generate the best payoff in terms of retention? Please provide the data and analysis to substantiate your answer, or are you using judgment or anecdotal evidence to assess the degrees of success or failure? Does the Navy have any studies on these issues? By independent organizations? Please provide copies.

Answer. Marine Corps quality of life (QOL) programs contribute to military mission outcomes. This was demonstrated in the 1994 "Quality of Life in the Marine Corps" study conducted by the Navy Personnel and Research Development Center (NPRDC). This study statistically linked the QOL program investments to readiness and retention. This study is scheduled to be readministered in 1998 to reassess Marines' QOL across 11 life areas and their relation to mission outcomes.

There is a myriad of QOL program-specific research, such as the MWR Patron Needs Assessment, also conducted by NPRDC and completed in 1997. According to data, the top 10 programs/services rated as most important to Marines were: (1) Exchange; (2) Information, Tickets and Tours (ITT); (3) Fitness Centers; (4) ATM Machine; (5) Military Clothing Store; (6) Gas Station; (7) Movie Theater; (8) Barber Shop; (9) Auto Hobby Shop; and (10) Swimming Pools. Two other recent QOL program-specific studies conducted were: the Effectiveness of the Voluntary Education Program, performed by the Center for Naval Analysis, and the Spouse Employment Survey and Analysis, performed by Human Technology, Inc. and CODA Inc.

The Marine Corps has a robust QOL research program, with many ongoing initiatives to determine both Marine and mission needs. In 1998, an "Assessment of Program Contributions to Military Outcomes," will obtain effective program measures for 22 MWR and Human Resources programs, and assess each program's contribution to military outcomes. Another study, the "Marine Corps MWR Leadership Assessment," will gather commander's and senior NCO leadership recommendations for MWR mission support. Both studies will be conducted by NPRDC.

Research results are used as the basis for policy and resource decisions. Combined with commanders' leadership experience and judgment, the Marine Corps QOL pro-

grams provide a demonstrated return on investment to mission outcomes. All of our Quality of Life programs are producing positive results.

One of the programs which is working is the Voluntary Education Program. Recently a study was completed by Center of Navy Analysis on the effectiveness of the VolEd Program. Although the focus of the study was the Navy program, we believe similar results would be obtained for all services. VolEd participants have significantly better promotion prospects. Academic skill participants are more likely to crossrate. VolEd participants have significantly lower demotion rates and higher reenlistment rates. A copy of the Navy's Report "Effectiveness of the Voluntary Education Program" (43 pages) is available upon request.

Family Programs improve Quality of Life for Marines and their families and enhance retention and readiness by providing the tools needed to meet the challenges of the military lifestyle. Family Service Centers provided 289,000 units of service in their first year of operation in 1988. In 1997, 1.7 million units of service were provided. A recent study by Caliber Associates looked at selected family service center programs (all services) and determined that there was a nexus between family service center programs and readiness.

The USMC child care programs are also providing essential services which affect readiness. The demand for child care exceeds the current capacity but we are reviewing our delivery systems to make certain that we are providing the services that families most require. For example, we are focusing on ways to expand care for children three years and under as this represents the greatest percentage of our unmet need. We do not have the data to support an argument in terms of child care's payoff for retention.

Question. What changes have been occurring in spouse, child, and substance abuse for the past two years? Please differentiate between officers and enlisted, length of service, and among major military specialties and perstempo rates.

What is the role of the current high perstempo in any changes in family or substance abuse? Please provide copies of any analysis you have of the relationship.

Answer. In the past two years, there have been no significant changes in substance abuse. Preliminary figures for the number of substantiated incidents of domestic violence in fiscal year 1997 are 1,597 and for child abuse 844. The figures for fiscal year 1996 are 1,979 for domestic violence and 969 for child abuse. The USMC family violence reports do not regularly differentiate between officer and enlisted. Also, we have not to date maintained data on length of service or major military specialty.

We have commissioned a special study by the University of Maryland School of Social Work in fiscal year 1996 to determine if the high OPTEMPO in fiscal year 1996 was a causal factor in domestic violence. The findings were that OPTEMPO is not a causal factor in family violence. However, deployments may precipitate incidents of family violence by someone already disposed to use violence.

QUESTION SUBMITTED BY SENATOR RICHARD C. SHELBY

HELLFIRE MISSILES

Question. General Krulak, has the Marine Corps obligated the fiscal year 1998 funding that was provided for the procurement of Hellfire missiles? If not, why not, and when does the Marine Corps intend to procure these missiles?

Answer. The funding for the fiscal year 1998 Hellfire plus-up was received at NAVAIR on January 14, 1998. PMA-242, the NAVAIR Hellfire Program Office, initiated contract action through the Air to Ground Missile Systems (AGMS) Project Office, Redstone Arsenal, Huntsville, AL. The Army is the executive agent for Hellfire and has already exercised all options on the previous Hellfire Contract, so a new contract must be initiated. Contract award is expected NLT June 30, 1998. Deliveries are estimated to be approximately 24 months after contract award.

QUESTIONS SUBMITTED BY SENATOR JUDD GREGG

CHEMICAL BIOLOGICAL INCIDENT RESPONSE FORCE [CBIRF]

Question. The Marine Corps has formed a Chemical/Biological Incident Response Force (CBIRF) to respond to chemical or biological terrorist incidents. I understand that the fiscal year 1999 Department of Defense budget request provides approximately \$49 million for National Guard units to bring in NBC equipment to augment early responders in a crisis.

Please update me on the Marine's Chemical/Biological Response Force activities since you appeared here last April?

Answer. The CBIRF Program has continued on the path of providing consequence management support and capability to those who need this type of assistance today and who will need it in the future. Fiscal year 1998 funding will complete the procurement of mission critical and state-of-the-art CBIRF equipment. We have procured both state-of-the-art protection for Marines, and special items that will detect and track weapons of mass destruction. The Marine Corps has also procured a block of modern medical equipment and treatment items to decontaminate both equipment and personnel. Some of the most recent efforts include portable and mobile mass spectrometers and a standoff chemical detector that can identify component agent signatures from a standoff location.

The Marine Corps is taking another step toward providing a consequence management capability around the world. Marine Expeditionary Units (MEU's) will have a CBIRF capability added to their current mission capability. We have trained one MEU with CBIRF capability and it deployed with a small package of equipment on loan from CBIRF. We have trained and loaned more extensive equipment to a second MEU, and we are preparing the third MEU to be even more capable than the first two. The third MEU will be used as a baseline to train and equip all MEU's in the future.

Question. How will the Marine's Response Force coordinate with and work with these National Guard Units which are coming on line?

Answer. The Marine Corps has participated in several coordination meetings with National Guard NBC representatives. The joint approach is for the National Guard to use the CBIRF's list of equipment as a baseline to rapidly construct an operational domestic preparedness organization. Using CBIRF equipment will enhance the National Guard's ability to respond to incidents involving weapons of mass destruction. It will also meet both the Secretary's Quadrennial Defense Review recommendations and the intent of the Congress. This will enable the National Guard to become a ready asset to both state and local authorities in future NBC consequence management. The Marine Corps has negotiated National Guard options on all recent CBIRF procurements.

AH-1W

Question. The Marine Corps has an ongoing program to equip the AH-1W Super Cobra helicopter fleet with a Night Targeting System which provides the gunner the capability to locate and identify targets at night, lock the cross hairs on the target, and fire the missile with lethal accuracy, all from a safe distance from the target.

What is the status of the fiscal year 1998 \$10.9 million authorized and appropriated for the AH-1W Night Targeting System?

Answer. The fiscal year 1998 funding has been released with contract award NLT June 1, 1998.

Question. Is there an unfunded requirement for AH-1W Night Targeting Systems beyond those programmed in the fiscal year 1999 budget request?

Answer. Yes, due to topline constraints, we decided to truncate procurement of the AH-1W Night Targeting System (NTS). Our fiscal year 1999 Budget Enhancement List includes an unfunded requirement of \$11 million in fiscal year 1999 to fund an additional 10 Night Targeting Systems.

The Marine Corps' Night Targeting System (NTS) program is structured in two parts, the aircraft installation and the actual targeting system itself. As currently programmed, the Marine Corps will procure NTS installation kits for all of its 203 AH-1W's and enough NTS systems to outfit 178 aircraft. The current acquisition objective for NTS is 188. We were only able to finance 178 within topline constraints, leaving 10 systems unfunded. The Primary Aircraft Authorization for the AH-1W is 168 and sufficient NTS's are planned to modify these aircraft; however, there are insufficient NTS systems to outfit the pipeline and attrition aircraft.

Procuring an additional 10 Night Targeting systems in fiscal year 1999 would allow the Marine Corps to obtain its force objective of 188 aircraft. Procurement of these additional systems is required for modification of the AH-1W Total Operating Aircraft Inventory (TAOI) to maintain this critical warfighting capability until introduction of the 4BW. I would be concerned, however, if funding for these 10 systems came at the expense of other programs currently financed in the fiscal year 1999 request or at the expense of funding requested in the fiscal year 1998 Supplemental.

QUESTIONS SUBMITTED BY SENATOR DALE BUMPERS

AMPHIBIOUS SHIPPING

Question. In fiscal year 1998 the Congress added to the Navy's budget \$10 million for pre-EMD engineering to marinize the Army Tactical Missile System (ATACMS). It was Congress' intent that this seed money was to be followed by a Navy program to integrate the marinized Navy Tactical Missile System (NTACMS) into the fleet for the Navy's mission to provide fire support in land attack warfare.

Is deep fire support a necessary requirement for planning and successful execution of USMC scheme of maneuver employing MV-22?

Answer. The MV-22 is a key component of the Marine Corps' concept for the projection of naval power into the littorals-Operational Maneuver From The Sea (OMFTS). Along with the LCAC and AAV, the MV-22 will nearly triple the battlespace within which today's commanders can operate. The expanded battlespace envisioned with OMFTS and MV-22 capabilities has changed the Marine Corps' approach to fire support. OMFTS requires rapid movement not just ashore but rather from ship to an objective which may be 200 nautical miles from offshore vessels, well out of range of current WWII vintage naval gunfire assets. NTACMS will provide a fire support asset with the increased range, accuracy and lethality necessary to support the operational needs of the OMFTS concept. However, due to the cost per missile and the dispersion patterns of the NTACMS, the Marine Corps will require improved shore-based fire support systems as well. Shore-based systems will provide a responsive, streamlined and cost effective fire support means to engage low end tactical targets. It is the combined effects of fires, sea-based (NTACMS), shore-based and aviation which are exploited to allow forces the freedom of maneuver. Deep fire support provided by NTACMS is complimentary to aviation and shore-based fire support, all three means providing the layered all-weather capability to sustain OMFTS.

Question. Does the USMC have a requirement for sea-based deep fires land attack missile? If so, how has the USMC requirement for deep fires land attack missile been addressed?

Answer. Yes. The Marine Corps requirement for a Land Attack Missile is that it must have the range to support Operational Maneuver from the Sea (OMFTS) and Ship-to-Objective Maneuver to 200 nautical miles inland. It must also have sufficient lethality to prevent enemy equipment and/or troops from continuing their mission.

The Marine Corps' requirement for deep fires Land Attack Missile is being adequately addressed by the Navy. The Navy is currently working to acquire additional funding to apply towards mid- and far-term Naval Surface Fire Support (NSFS) programs, which include a Land Attack Missile. The Navy is examining two systems: the Land Attack Standard Missile (LASM) and a Naval version of the Army Tactical Missile System (ATACMS). The Navy abbreviation is (NTACMS). The Marine Corps does not favor one system over another. It simply desires that whatever system the Navy selects meet the requirements articulated above. Both would currently meet the lethality requirement and both are eventually expected to meet the 200 nautical miles range requirement.

Question. Does the USMC concur with the Navy's assessments of land attack missiles being considered for the deep fires mission?

Answer. Yes. The weapons systems currently under consideration by the Navy will eventually meet the Marine Corps' deep fires requirements. The two systems are the Land Attack Standard Missile (LASM), and a Naval version of the Army Tactical Missile System (ATACMS). The Navy abbreviation is (NTACMS). Both would currently meet the lethality requirement, and both are expected to meet the 200 nautical miles range requirement.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

JOINT STRIKE FIGHTER [JSF]

Question. The Marine Corps is requesting to purchase the Short Take Off Vertical Landing (STOVL) version of the Joint Strike Fighter (JSF). What is the projected cost of this version of the JSF, in 1997 dollars, when it is delivered to the Marine Corps?

Answer. The Services' Joint Interim Requirements Document (JIRD) includes a unit recurring flyaway cost goal of \$30 to \$35 million in fiscal year 1994 dollars for the JSF STOVL variant. This equates to \$32 to \$37 million in fiscal year 1997 dollars.

Question. Will the development of the STOVL version of the JSF on the schedule required by the Marine Corps replacement needs necessitate additional costs?

Answer. No, the program was planned to meet USMC needs.

Question. What portion of the \$930 million 1999 budget request for development of the JSF will be allocated to development of the STOVL version?

Answer. The JSF variants are being developed as an affordable, highly common family of aircraft to meet service requirements developed from a joint perspective. Development costs are not severable by variant.

SUBCOMMITTEE RECESS

Senator STEVENS. Our next hearing will be on the National Guard issues on March 18. We appreciate your courtesy in visiting with us.

General KRULAK. Thank you, Mr. Chairman.

Admiral JOHNSON. Thank you, Mr. Chairman.

Secretary DALTON. Thank you, Mr. Chairman.

[Whereupon, at 12:05 p.m., Wednesday, March 11, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, March 18.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

WEDNESDAY, MARCH 18, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:03 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Bond, Leahy, Bumpers, and Dorgan.

DEPARTMENT OF DEFENSE

NATIONAL GUARD BUREAU

STATEMENTS OF:

LT. GEN. EDWARD D. BACA, CHIEF

**MAJ. GEN. PAUL A. WEAVER, JR., DIRECTOR, AIR NATIONAL
GUARD**

MAJ. GEN. WILLIAM A. NAVAS, DIRECTOR, ARMY NATIONAL GUARD

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, Generals. I am sorry to be late. I had 25 children from Alaska. It was a long way for them to come, so I put them first this morning.

We are going to hear from two panels today, first the leaders of the National Guard will testify on the 1999 priorities, and they are going to be followed by officials and participants from the National Guard Youth Challenge program.

I want to start with the National Guard Bureau. Lieutenant General Baca, it is nice to see you here. He is accompanied by the Director of the Army Guard, Maj. Gen. Bill Navas, and the Director of the Air National Guard, Maj. Gen. Paul Weaver.

We have taken the lead, I think, in addressing the question of readiness and the maintenance and acquisition of equipment for the Guard. In recent years, we have witnessed the results of these investments, the tremendous performance of the National Guard in every recent overseas contingency mission, as well as the support for natural disasters which are occurring daily now around the country.

Despite this success story, there are still proposed cuts now in the force structure, and in the OPTEMPO and training and infrastructure support funding. We are going to assess these funding requirements this morning at the request of Senator Cochran and Senator Lott. The subcommittee also wants to review the National

Guard Youth Challenge Program. I visited that program in our State, as you know, and we have our Adjutant General here, I understand.

This program has been very widely recognized for achievement and currently is being carried out in 15 States. Another 23 States would like to start programs. They are on the waiting list, and we need approval of funding for that purpose.

We have supported the Youth Challenge Program from the very beginning. There were a great many skeptics about that program. My colleague from Hawaii has just returned from a trip and will not be with us this morning, but he and I both feel that the programs in our States have been very successful, and I look forward to having General Lestenkof—Jake is here to testify and describe the Alaska program.

I know there are others here who have some comments about the program, but I want you to know that in partnership, there is a bipartisan partnership here on this committee, we will do everything we can to address your needs this year and to assure you that you have the funds to continue the marvelous success you have had in past years.

So let me first, under the early bird rule, recognize the Senator from Vermont. You have an opening statement of any kind?

Senator LEAHY. I do not, Mr. Chairman. I know you want to get into this. I have already discussed with Generals Navas and Baca some issues regarding some Blackhawks in Vermont, and I appreciate the very good news we have in that regard, and so at the risk of talking them out of it. Thank you.

STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. Mr. Chairman, I join you in welcoming our panel of witnesses. It is always a pleasure to have this hearing and review the activity of the National Guard—Army and Air Force.

We appreciate very much the outstanding work that is done by the National Guard in our State. We are aware of the fact that we have Air Guard units who typically get invited to participate in these foreign operations, particularly in the Bosnia area.

We have seen a lot of missions flown by Guard units there. With this operational tempo continuing to increase, with the deployments to other areas of the country as well I am concerned that we are not seeing enough funding allocated to the National Guard.

And I am not accusing anybody of being too frugal with the scarce dollars, because we are seeing a declining defense budget in real terms, even when we are increasing the activities, having emergency deployments and supplemental appropriations that we marked up in this committee yesterday. I am worried that we are not going to be able to continue to recruit the quality of people to serve in the National Guard and to fly the planes and do the challenging work that has to be done, supposedly on a part-time basis, and still do it with a proficiency and skill that the No. 1 power in the world expects from its military forces.

So these are issues that I think we should address this morning, and I look forward to your testimony in connection with those concerns.

BALANCE OF ALLOCATION

Thanks, Mr. Chairman.

Senator STEVENS. Generals, I think you should know that we are marking up the budget this morning. Many of our members are also members of the Budget Committee, and we have two other meetings of our own committee this morning. A number of people here on the committee want to submit questions to you and have asked me to convey their regards to you.

I think that we are all very much aware of what the situation is, and I was going over the briefing my staff gave me to look at last night before this hearing and was struck by the percentage that they pointed out. In terms of military construction alone, the Guard is going to receive 7 percent of Milcon requests, and the Army Guard alone represents 42 percent of the combined Active Army and Guard personnel strength.

The balance of the allocation that are before us in the proposed budget submitted by the administration are just out of whack. They are going to be very difficult to deal with, but we need your help in testimony given and questions that you are going to answer this morning.

We will print all of your statements in the record as though read, and urge you to summarize them and give us the best advice you can as to how we might deal with these problems.

General.

A VITAL FORCE ADDING VALUE TO AMERICA

General BACA. Thank you, Mr. Chairman. We will be brief.

Thank you for the opportunity to testify today. You know, Senator Stevens, it is always a pleasure to be here before you and your committee.

On a personal note, as this is my last appearance here as the Chief of the National Guard Bureau, I would like to thank you and the committee for your support during my tenure. I have enjoyed a productive relationship with you, which I am proud to say will make our National Guard a strong organization.

Your strong and positive encouragement has enabled us to poise this institution for the next century, ready and prepared to ensure the security and safety of America.

I have just returned from a trip to Europe, where I had the privilege of witnessing some of the guardsmen on the frontiers of freedom. I saw our people maintaining the peace in Bosnia, exercising with our Norwegian counterparts and moving air cargo in Germany. They are building a bridge to America through the National Guard-sponsored State partnership programs which link emerging democracies with our States back home.

Our guardsmen are building a stronger peace overseas, strengthening America's defense, and adding value to our communities.

I understand that the next panel is addressing our challenged youth program, Senator, and that is just one of the ways that we enrich our communities.

The National Guard is indeed a vital force, with depth and breadth across the full range of capabilities. These men and women, engaged in actions all over the world, reinforced to me the

idea that our Guard is truly the face of America. It is our best connection to the American people. They willingly sacrifice for their families, their careers, and their loved ones to go out there and do the tough job that we ask them to do. I think you will agree that this takes a special kind of dedication. Truly, they bring new meaning to the word "dedication."

As you read our posture statement, which we have distributed, you will find missions and roles statistics and figures, but above all you will find the story of talented people who care deeply about this country and readily step forward to play an important role in its defense. They are among our best and brightest, as well as our most caring and devoted citizens.

The vital force we describe is a combat-oriented balanced force, with capabilities across the full spectrum of defense. It is relevant to America's national security and national defense needs, and it is ready to play its historic role as a primary first line ready Reserve Force of America's security.

As we demobilize from the cold war, the National Guard once again is emerging as the inexpensive insurance policy for America. As you know, we stand shoulder-to-shoulder every day with our Active component counterparts. We are also poised to expand our traditional role of homeland defense to meet the new threats posed to us by the weapons of mass destruction.

The Guard has a big job. It is consequently a big organization. It is the largest single Reserve component within the Department of Defense and, in terms of comparisons with the Active and Reserve component numbers, second behind only the Active Army.

We represent almost 500,000 citizen soldiers and airmen from every community in America. Our Guard members meet the same high standards of performance as their counterparts that do the same jobs in the Active.

On behalf of the dedicated men and women of the National Guard, I hope you will honor their commitment with the generous support and encouragement that you have always given us. Our partnership has been very successful for over 222 years, giving the citizens of this country unparalleled security and freedom. The Guard remains ready to continue that commitment to our country, our States and our communities, but not without challenges.

PREPARED STATEMENT

On behalf of the men and women of the National Guard, I thank you. I also thank you personally for sharing your time with us today and for the opportunity of productively working with you during my tenure as Chief.

Thank you, Mr. Chairman.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. EDWARD D. BACA

DEFINING "AMERICA'S VITAL FORCE"

For the past four years as Chief of the National Guard Bureau I have been honored to represent the nearly half a million dedicated men and women who constitute America's organized militia-citizen warriors whose traditions and heritage stretch back to the days of the first European settlers. A number of reviews have had significant impact on our activities over this period: Secretary Aspin's Bottom-Up Re-

view, the Commission on Roles and Missions study, the Quadrennial Defense Review (QDR), Secretary Cohen's Defense Reform Initiative (DRI), and, most recently, the National Defense Panel (NDP) assessment. A single consistent vector has emerged from them all: the need to rely more heavily on the National Guard in planning America's defense for tomorrow. In presenting this, my valedictory posture statement to Congress, I address you with a profound conviction—clear and unshakable—that today the National Guard is once again emerging as America's "Vital Force."

The Imperative of Change

With our country's defense budgets at the lowest relative levels since the beginning of World War II, our military establishment moving away from the military constructs of the Cold War, and the emerging world order of the 21st century yet to take solid form, there are new military requirements to satisfy and new economic imperatives to honor. Technologically, this requires us to seek new standards of performance and cost-effectiveness. Culturally, however, the process is a familiar one.

The essential requirement is that we reshape the institutions of national defense to meet changed realities. The talent to do this—adapt in the face of new threats and new opportunities—has been an element of national character from the earliest colonial days. Americans have been in this situation before and made the right choice: trust in and rely on the militia heritage that has sustained us for over 360 years.

The post-Cold War era demands a national defense force that is Versatile, Ready, and Affordable. A Total Force approach that relies on a strong National Guard satisfies these requirements. As the National Defense Panel noted, it is time to resume making full use of one of our most valuable national resources—the American citizen soldier. It is time to anticipate a growing National Guard role in the defense missions of the 21st century, and to resource and mission accordingly. And it is time to recognize that the requirements of tomorrow call for National Guard forces that are balanced, stabilized, modernized, and integrated wholly into the Total Force structure.

The Guard and National Military Strategy

Our current National Military Strategy provides a sound blueprint for meeting the national security demands of today and building the force of tomorrow. In Shaping the international environment to reduce risk and enhance global security, our citizen soldiers and airmen bring American values, social diversity, and unique technical skills to the task of promoting the establishment of democratic institutions abroad. In Responding across the full spectrum of conflict when deterrence and diplomacy fail, they prove daily that the National Guard is a Global Guard which can be as combat-ready as it is resourced to be. And in Preparing Now for an uncertain future, they craft innovative approaches to training and readiness, developing low-cost solutions to equipment upgrade requirements and willingly undertaking new missions as committed members of the Total Force team. Their performance is magnificent; their potential, unlimited.

The National Guard leverages minimal investment to sustain enormous capability. For less than five percent of the entire DOD budget, we provide a reliable, high-quality, commercial-off-the-shelf resource that comes ruggedized, missionized, and ready for service. As members of a dual-role force with three missions, our men and women have a positive impact that can be felt on a global scale, on a national scale, and in the neighborhoods and communities across America. Whether serving in a Federal capacity to defend national interests in the Persian Gulf, in a State capacity to protect lives and property threatened by natural disaster, or promoting youth opportunity and drug demand reduction programs in their hometowns, your Guard members are helping defend and strengthen America in a way no other American military organization can.

The National Guard Vision

Former Chairman of the Joint Chiefs of Staff General John Shalikashvili left a strong legacy in Joint Vision 2010, calling for America's military to achieve and maintain full-spectrum dominance by leveraging information superiority and technological innovation. We in the National Guard have crafted a vision of our own that supports this fully and are pursuing it steadily as we become, once again, America's Force for the Future.

OUR VISION

The National Guard—the most ready reserve component in the world—led, trained, equipped, and resourced to accomplish national security and military objectives while providing the States a balanced force of units with organic chains of command capable of performing the military support mission.

SUSTAINING A COMBAT-ORIENTED FORCE

The National Guard is—and must remain—a combat-oriented force. In a Federal role, our primary mission is to provide forces for global service in support of the unified commanders in chief (CINC). When America's military force structure stabilizes, the Army National Guard will furnish 58 percent of the Army's combat forces, 36 percent of its combat support, and 31 percent of its combat service support. The Army Guard's 15 enhanced Separate Brigades are included in CINC war plans for both Korea and Southwest Asia. The Air National Guard, already well-integrated into a Total Force team with the Air Force and Air Force Reserve Command, currently provides 100 percent of our nation's homeland air defense, almost 80 percent of the Air Force's combat communications, nearly half of its theater airlift and aerial refueling aircraft, and almost one-third of its fighter/bomber assets. Dedicated air defense will be eliminated in the future, but the units now performing this task will re-role as general purpose fighter forces and continue pulling their weight on the combat team.

Balance remains a critical issue to be monitored closely. Balance is the key to flexibility, and flexibility is vital if we are to be ready to meet the uncertain threats of the future: major theater war involving regional strongmen; asymmetric attacks that skirt our strengths and attempt to strike only at our perceived vulnerabilities; transnational challenges posed by radical ideologies and criminal factions; and the unanticipated—and unanticipatable—wild-card threats yet to emerge. The Army National Guard must continue to field a proportional mix of combat, support, and service support forces. The Air National Guard must continue to operate a combination of fighter, bomber, airlift, and support aircraft, and maintain appropriate other ground, space, and related support skills. And both services must expand into the new mission areas of national defense and the new technologies of warfare as these evolve. Regrettably, some would like to see the Guard restricted to a combat support role, or restructured with limited warfighting capabilities that were consolidated in a few regions of the country where, hypothetically, they would be “more accessible” for contingency use.

A Warfighting, War-Winning Organization

As we continue promoting integration among the components for more effective warfighting, it is time to end such “policy debates” once and for all. The National Guard must continue sharing risk on the battlefield and in the skies over it. The lesson of Vietnam is that nations, not armies, fight wars. As JCS Chairman, General John W. Vessey, Jr., observed “If you do not have public support, your security policies are invalid.” The National Guard has a presence in more than 2,700 communities across all 50 States, the District of Columbia, Guam, the Virgin Islands, and Puerto Rico. When the National Guard goes to war, families and townships throughout America go to war. This fosters broad domestic support for just action and discourages questionable ventures. If an international contingency is not considered appropriate for the National Guard, its validity as an act of national security merits serious reconsideration. As to willingness to serve, the majority of Guard members performing Federal missions abroad today are volunteers. Volunteerism is in keeping with our traditions and beliefs, and carries the additional benefit of providing unified commanders early access to National Guard resources.

Approaching the issue from another angle, some have suggested that war today may be “too technical” for America's citizen soldiers and airmen. Let that be put to rest, also. Among other examples of the skill of our soldiers and airmen, members of the Army Guard serve with the National Training Center's elite Opposition Force (OPFOR), and the Air National Guard has won or shared approximately half of the Air Force's prestigious William Tell air-to-air competitions since 1970. Guard members not only develop and maintain high levels of basic proficiency in their military specialties, they do so while running commercial businesses, managing warehouses, teaching school, repairing computers, serving as community leaders, and supporting and raising families that may not even live in the community where the member trains and serves. They sacrifice to serve, and serve with skill. Our deployment

record shows that the Global Guard always performs with distinction when properly tasked and resourced.

The Global Guard

Since Desert Storm the National Guard has consistently demonstrated its commitment to the Total Force, participating in over 40 major contingency, peacekeeping, and humanitarian operations. Several have involved extended participation—Haiti and Bosnia, for example—and many have been both extended and joint—such as participation on the Sinai Multinational Force of Observers and in operations enforcing the northern and southern no-fly zones over Iraq. Our men and women have taken on every new task assigned and mission offered with their customary zeal. During my tenure, that has included such missions as command of national air defense, transitioning into bomber aircraft, entering the field of space operations, providing infantry units for peacekeeping in Bosnia (the first activation of an Army Guard infantry unit since the Vietnam War), and even taking over the responsibility for supporting National Science Foundation operations in Antarctica. Support for theater CINC's has more than doubled over the past four years, rising from 454,000 mandays in fiscal year 1993 to over a million mandays in fiscal year 1997 even as our budget fell slightly. The continued high Operations Tempo (OPTEMPO) and Personnel Tempo (PERSTEMPO) of the Active forces makes this increase in Guard activity essential, and our people are clearly up to the task.

Last year America's Guard men and women conducted operations in more than 70 countries in support of all five theater CINC's. Overseas activity involved training in countries like Brazil, Australia, Egypt, and Singapore, deploying to Qatar, Bosnia, and Korea for peacekeeping, and performing counternarcotics missions in Central and South America. The broad scope of our capabilities was exemplified by Wyoming Air Guard operations in Indonesia suppressing forest fires that had enshrouded the island nation and Malay peninsula in smoke for months, and by the Missouri Army Guard training Fijian soldiers in bridge construction. Whatever additional overseas demands the future may hold in store, count on your citizen soldiers and airmen to carry them out with the Guard's hallmark skill.

PROMOTING DEMOCRACY ABROAD THROUGH ENGAGEMENT

A major additional task in the National Guard's Federal role is that of Preventive Defense. We are uniquely postured to promote democratic practices abroad and find ourselves in frequent demand for nation-building programs, such as the North Atlantic Treaty Organization's Partnership for Peace program, European Command's Joint Contact Team Program, Southern Command's Traditional CINC Activities Program, and other similar activities sponsored by the Office of the Secretary of Defense, the Joint Staff, and various State Department agencies. Many are undertaken under the aegis of the State Partnership Program.

There is good reason to call on the National Guard when America wants to present its best face to the world. Our professional militia provides an influential example of how a military force can be effective while deferring to civil authority and the rule of law. This is the ultimate embodiment of democratic values, particularly to the states of eastern Europe and the Former Soviet Union struggling to break with repressive pasts. National Guard personnel and the militia system under which they operate are models for the world. They illustrate how a military force of the people remains committed to the people. The wealth of civilian skills our Guard members take overseas—and the diversity of non-military professions they represent—are also important, giving our men and women a versatility and credibility as goodwill ambassadors that no other American military arm can match.

The State Partnership Program

Much of the Guard's success in promoting democracy abroad is the result of the State Partnership Program. To date, 30 States and Puerto Rico have joined as Partners or Associate Partners in extending the hand of friendship from grassroots America to 31 countries that would emulate our ways and institutions. Foreign military personnel and political leaders visit our country to observe how the National Guard operates within the State and Federal framework, and National Guard members reciprocate with visits back to the partner country in which they provide detailed information on civil-military topics like search and rescue, medical support, disaster response, military law, and family programs. Importantly, these are more than just military-to-military contacts. By involving governors and mayors, their staffs, State legislatures, and the families and friends of our Guard men and women in building these bridges of friendship, we promote political "buy-in" on national security strategy at the local level and foster cooperation between the Federal and State governments in other productive ways.

Tasking in this area is growing rapidly. During 1997, Guard members repaired hospitals and orphanages in the Republic of Georgia, conducted joint training in Estonia, provided civil engineering support for nation-building projects in Cambodia, and hosted counterpart visits by military representatives from Hungary, Bulgaria, and Brazil, to name just a few of the activities conducted under this valuable bilateral linkage. In New Horizons, the largest combined training-humanitarian support exercise conducted in the western hemisphere, more than 3,400 Guard personnel from several states conducted engineering projects in Belize and Panama over a 6-month period, sharpening the military skills of our militia men and women while demonstrating their ability and willingness to enhance the quality of life for hemispheric neighbors. We are firmly committed to sustaining this effort, which has our Guard men and women "transforming the world one orphanage at a time."

MAINTAINING A BALANCED FORCE OF CAPABILITIES

In our Constitutionally mandated State role, the National Guard mission is to provide emergency support to the governors of the States and Territories. This includes disaster response, support to law enforcement officials in cases of civil disturbance, and assistance with such activities as wilderness rescue. While not a record year, 1997 still saw Guard members respond to over 300 emergency callups when their fellow Americans required help, providing 280,000 mandays in support of State and regional neighbors.

Flooding in California, Colorado, Hawaii, Idaho, Kentucky, Minnesota, Nevada, North and South Dakota, and Ohio, much of it record level, led to callups, as did tornadoes in Arkansas and Michigan. When Hurricane Danny lashed the Alabama coast, National Guard members were standing by to provide life-saving assistance and remained on scene to help stricken communities get started down the long path to recovery. In Alaska, the Army and Air Guard were credited with saving 113 lives in rescues of people lost, injured, or marooned across the State. On Guam, militia men and women provided search, rescue, and security support to federal and local agencies following the tragic crash of Korean Airlines Flight 801. And in an effort that is certain to presage further inter-State cooperation, crews from the Air National Guards of Oklahoma, Texas, and Wyoming joined those of embattled New Mexico last December to airdrop feed to cattle stranded by blizzards.

Readiness and Redundancy

The unpredictability and devastating impact of such emergencies underscores how important it is for the National Guard to field a balanced mix of forces and capabilities in each State and geographic region. Command, control, and communications; transport; engineering; military police; search and rescue—all of these capabilities, as well as several others, must be immediately available to State authorities when required.

We in the National Guard, in full cooperation with the States, the Federal Emergency Management Agency (FEMA) and other governmental authorities, are actively searching for new efficiencies in disaster response operations. The conclusion of Emergency Management Assistance Compacts between neighboring States is one example. These establish conditions and procedures under which Guard members from one State can provide assistance to another State with the agreement of both governors, and reflect the Guard's concern with cost-effectiveness and resource conservation. A number of States already have signed compacts with their neighbors, paving the way for sharing personnel and equipment during times of crisis. The growing involvement of America's citizen soldiers and airmen in domestic counterterrorism and post-attack response operations is sure to lead to other forms of inter-State cooperation.

At heart, however, it can never be forgotten that our responsibility to the States is mandated by the Constitution. This cannot be suspended by the apparent efficiencies of wholesale consolidation that well-intentioned cost-cutting staffs may postulate.

PRESENTING THE FACE OF AMERICA

The National Guard is the face of America. Our people and our values are the people and the values of the nation, at all times and in every corner of the country. The militia tradition of service to nation and neighbor springs from this. Half of the signers of the Declaration of Independence were militiamen, as have been 18 of the 41 Presidents and numerous members of Congress. In the 105th Congress alone, more than 70 members have served or are currently affiliated with the Guard or Reserve.

Diversity and Opportunity

One of our greatest strengths is the diversity of those who comprise our ranks. They and their families strengthen our mettle, infusing the organization with new blood, new perceptions, and new ideas. They volunteer from all of America's varied social, educational, and economic backgrounds, and represent a true melting pot of race, creed, color, and gender. Their sole common denominator is commitment to this great country and the finest qualities it engenders in the human spirit. Our sole common demand of them is that they embrace the core values we nurture as an institution—integrity, loyalty, dedication, service, selflessness, compassion, family, and patriotism—and endeavor to live up to them in every undertaking.

Within the National Guard there are only two measures of merit for promotion: performance, and adherence to the values for which we stand. This even-handed approach pays large dividends in attracting talent and fostering loyalty. While we neither targeted specific ethnic groups for recruitment nor established race- or gender-based promotion quotas, minority representation in all ranks increased steadily throughout the 1990's. The percentage of minorities in the Air Guard grew almost 4 percent during the past 5 years and now stands at 19.4 percent. In the Army Guard, the increase was 1.5 percent and the current minority total stands at 26 percent. Percentage point increases for the officer corps alone are roughly identical, making it clear that the Guard is an equal opportunity force from top to bottom.

The percentage of women in the National Guard likewise continues to increase, as do the number of women attaining positions of authority. For example, in 1997 the New York Guard appointed its first female battalion commander, the Florida Guard promoted its first women to flag rank, and Vermont selected the first woman Adjutant General in the Guard's history. These skilled professionals were among notable record-setters last year but were by no means the only ones. They are sure to be followed by others in the years ahead as the role of America's militia continues to grow.

People Programs

The men and women of the National Guard remain our greatest resource. As Guard OPTEMPO and PERSTEMPO accelerate to ease the burden on a heavily committed Active force, it becomes increasingly important to ensure our members' families are cared for during absences. Living in communities with family and friends is an advantage some stay-behind spouses enjoy, but others lack such safety nets. Fortunately, our Family Partnership Program, one of the most extensively networked in the Department of Defense (DOD), is the strongest it has ever been. Our people know that if they are called up to serve halfway across the country or halfway around the world, they can leave home confident that their families will be cared for.

Another major concern for National Guard members eager to serve is the potential impact of a callup on their civilian jobs. Will service for State or nation adversely affect their job security, skill development, or promotion opportunities? The answer is no for three reasons. The first is the patriotism and support of the American business community. Most employers understand that there is a moral bottom line that outweighs the one in account ledgers. For those few who fail to appreciate that, the Uniformed Services Employment and Reemployment Rights Act passed by an insightful Congress in 1994 updates the legal "livelihood safeguards" for our citizen soldiers and airmen. For that, we remain grateful. The third element is a strong, highly dedicated staff in the Office of the National Committee for Employer Support of the Guard and Reserve. They are working aggressively to protect the reemployment rights of those who have to leave their jobs for six to nine months to enable the Global Guard to perform its worldwide missions.

Recruiting and retention are always concerns for the military during periods of institutional turbulence, heavy operational demand, and a strong domestic economy. All three conditions are occurring today and yet the National Guard continues to attract and keep high-quality personnel. Last year we met or exceeded all of our goals. In part, this was due to the innate patriotism and selflessness of many young men and women in our society, the abiding appeal of the militia tradition, and the National Guard's sincere commitment to superior leadership, quality training, and equal treatment. Pragmatically, however, we also recognize the value of such inducements as the Montgomery G.I. Bill and the education assistance programs some States provide. The importance of academic incentives was proven beyond any doubt when New York's offer of tuition-free education in the State's 70 public colleges and universities rocketed the Empire State Guard "from worst to first" in recruiting and retention nation-wide over a two-year period.

Adding Value To America

A community-based organization like the National Guard cannot claim to “present the face of America” without giving something back to the society from which it springs. That is why we have a third mission exemplified in the phrase The National Guard “Adds Value to America.” This is the mission your National Guard members perform within their communities, serving as role models for disadvantaged youth, providing health care for the indigent, assisting adult Americans to develop better job skills, and supporting organizations and agencies whose activities at the local level make hometown America a better place to live and work. Currently, 21 States and Territories conduct youth programs that are considered among the most successful in the nation at a per capita cost that is lower than juvenile and adult correctional institution costs, the Job Corps, and National Service.

Our most effective intervention program for at-risk youth is ChalleNGe which provides academic instruction and training in job skills and life-coping behaviors to unemployed high school dropouts. Sponsored in 21 States, the program consists of a five-month residential phase followed by a year of close mentoring and leads to a General Educational Development (GED) diploma for most participants. The number of young men and women graduating from ChalleNGe over the past five years is rapidly approaching 13,000, with almost 80 percent receiving their GED. The fiscal year 1998 Defense Bill removed the provisional status of ChalleNGe and made it a permanent program under Title 32.

STARBASE (Science and Technology Academics Reinforcing Basic Aviation and Space Exploration), another of our major youth programs, exposes students from inner city schools to “hands-on” experiments where they apply math and science to real-world problems in aviation and space-related disciplines. STARBASE is conducted in 14 States and Territories and reaches over 10,000 students each year.

The Youth Conservation Corps (YCC), our third principal program, is directed toward the same population as ChalleNGe. It is a six-to-ten week residential program that uses military-based training to develop pride, self-discipline, and an understanding of cooperation and citizenship in at-risk youth. Over 600 young men and women have completed YCC training since its inception five years ago.

Drug Demand Reduction

Illegal narcotics trafficking poses one of the most pervasive and deadly threats our nation faces, and we in the Guard take the campaign against it seriously. In our Federal and State roles, we actively support a wide range of foreign and domestic counternarcotics and drug interdiction operations. As an organization grounded in hometown America, though, we know that our schools and neighborhoods are also battlefields where the struggle is waged one precious life at a time. Our Guard men and women fight it on those terms by supporting drug demand reduction efforts as part of the Guard's community support mission.

Our members and their families participate in many of the over 8,000 separate drug demand reduction programs underway nationwide that focus on community coalition building, circulating anti-drug messages, developing leadership within vulnerable groups, and promoting high standards of citizenship. While our personnel normally allow local community groups to take the lead, National Guard members are in high demand to conduct substance abuse education programs, to mentor at-risk individuals, and to perform other tasks where they can be showcased within their own communities as positive role models. Since all of our own youth programs have embedded drug-prevention themes, many Guard men and women are proficient in demand reduction instruction and techniques. For the past two years, we have also been a partner in the Community Anti-Drug Coalitions of America, enabling us to contribute to—and draw on—an enormous base of counterdrug resources distributed across the face of America.

REMAINING THE FIRST LINE OF HOMELAND DEFENSE

One common thread running through all recent DOD studies has been a reaffirmation of the National Guard's responsibility to remain the first line of homeland defense. It is a task we accept willingly.

Weapons of Mass Destruction and Emergency Response

“I must say, there is probably no more important mission facing the Department of Defense right now than being prepared to defend this country at its home in the event of a chemical or biological attack. And the Guard has to be at the forefront.” Deputy Secretary of Defense John J. Hamre

The Fiscal Year 1997 Defense Authorization Act tasked DOD to implement programs to prevent and respond to terrorist incidents involving Weapons of Mass Destruction (WMD), and to support State and local emergency response agencies in-

volved in these activities with training and equipment. Studies mandated by that act have since made it clear that the National Guard, by virtue of our grassroots community presence throughout the nation, extensive training experience, and inherent State disaster response duties should play a vital role in this critical aspect of homeland defense.

This is a natural mission for America's militia. Our first charter in the New World three-and-one-half centuries ago was community defense. We have never failed our fellow citizens in living up to that trust. We were providing organized on-scene support within minutes of the tragedy in Oklahoma City two years ago, and will be there again whenever and wherever our neighbors need help. Our State Area Commands are important hubs in the nationwide emergency response network, and our Adjutants General serve as the Emergency Manager in almost half of the States. The Reserve Component Automation System (RCAS), which we are extending into Guard and Reserve facilities across the nation, upon completion will provide electronic access into communities large and small for emergency information flow. In conjunction with the National Guard Defense Learning Initiative, RCAS also offers a mechanism for training local personnel in counterterrorism and WMD disaster response.

As the first step, Guard professionals are participating in training local emergency responders in a program that initially will cover 120 cities. Other tasks will certainly follow. If our enemies try to strike at the American people in their homes, schools, churches, and shops, they will find the National Guard vigilant, determined, and ready.

Counternarcotics and Drug Interdiction

Counterdrug operations make up an important part of all three National Guard mission areas. In addition to the demand reduction programs we promote within our communities, we have both Title 10 and Title 32 responsibilities in our nation's counterdrug fight. Under Title 10, the Army and Air National Guard help theater CINC's detect and monitor attempts to smuggle narcotics into the United States and its Territories from their regions. We do this by deploying individuals and units to locations abroad where they perform ground-based and airborne surveillance, provide linguistic support, augment intelligence staffs, and assist in other ways. Our recurring deployments to Panama for Operations Coronet Nighthawk and Constant Vigil are familiar examples of this.

Under Title 32, the National Guard supports various Federal, State, and local law enforcement agencies in counternarcotics and drug interdiction operations within the country and Territories. We furnish equipment, manpower, and special expertise that other agencies have come to rely on heavily over the past few years in campaigns against drug smuggling, distribution, and domestic cultivation. From assisting in cargo inspection at U.S. ports of entry to providing aerial reconnaissance and photointerpretation for interception operations and the location of illicit domestic drug crops, Guard members are recognized as key players on the U.S. counterdrug team.

During 1997, Guard men and women—all volunteers—participated in 9,260 counterdrug missions and helped seize considerable amounts of processed narcotics and amphetamines, vehicles, and weapons, as well as almost 30 million marijuana plants. More than 96,000 arrests were made and almost \$200 million in currency confiscated in these operations. Guard members' status as agents of their State exempts them from the posse comitatus restrictions that prevent other U.S. military forces from being used in a similar way. Counterdrug support is performed in addition to regular wartime mission training and enhances basic military skills.

Homeland Defense Missions

Other related homeland defense missions are likewise natural tasks for our citizen soldiers and airmen. When a National Missile Defense system is fielded, we should have a strong—if not commanding—presence in the system's control centers and maintenance facilities. This will be a wholly logical extension of the national air defense mission the Guard now performs, and our capability was demonstrated in the days of Nike-Hercules missiles.

Related directly to that is the Guard's potential future role in all forms of U.S. Space Operations. Missile launch, satellite control, and space system management are missions in which scientists, technologists, and other highly skilled National Guard professionals could couple civilian work specialties with their military training and discipline to serve national defense.

Information Warfare is another important new military function in which the Guard has a major role to play. As America continues its transformation to an information-based society, we find ourselves newly vulnerable to electronic attack on the

cyber-systems that have become essential for financial transactions, commerce, communications, transportation, and the other arteries sustaining our social structure. The ability to detect assaults and counter-attack swiftly and effectively is essential. There is an excellent fit here between many Guard members' civilian professions and national defense service, and we expect to become steadily more involved as this "combat specialty" evolves.

The operation of Remote Weapon Systems, such as unmanned aerial vehicles (UAV) and other systems yet to emerge, is still another area in which your National Guard can play a productive, cost-effective role. While training at home to deploy these systems overseas for conventional combat purposes, we would be able to increase the scope and potency of our participation in State missions such as drug interdiction surveillance, search and rescue, and disaster response.

FUELING THE REVOLUTION IN MILITARY AFFAIRS

Today's Revolution in Military Affairs is the product of two factors: exciting technological advance and mundane fiscal constraint. The men and women of the Army and Air Guard are strangers to neither. They understand fully the need to develop alternate ways of doing business to ensure that we remain effective in a newly lethal environment under prevailing tight budgets. Long accustomed to doing more with less, we have made a virtue of necessity by developing a culture that embraces "smart innovation," or, as it has been put, "thinking outside the box without destroying the box." Several of our past initiatives continue to pay large dividends, and the dynamism of our people is producing more daily.

Technology and Innovation

The National Guard is an aggressive proponent of leveraging technology for greater effectiveness and readiness. In the complementary RCAS, Warrior Net, and Distance Learning Network, we are doing with electrons what President Eisenhower did with the interstate highway system. These PC-based networks eventually will link every Guard armory and air facility in the nation with appropriate headquarters and specialty training units for the distribution and exchange of automated information management data, decision-making support mechanisms, distance learning, and disaster response communications and coordination. Over the past four years we have dramatically intensified our focus on computer linkage—originally established primarily to reduce training and administrative expense—to good effect, and now the demand on these networks to support other activities is growing steadily. With linkage to other Federal and State directorates and agencies—such as the Army's Directorate of Military Support, FEMA, and the counterdrug community—these systems become a national telecommunication resource of major consequence.

The Army and Air Guard both have enjoyed substantial success in employing simulation technology to meet the persistent challenge of providing realistic training at reasonable cost. The Army National Guard's Project SIMITAR (Simulation in Training for Advanced Readiness), encompassing more than 30 training simulation initiatives, has produced several effective systems for bringing the battlefield into the armory and continues to offer new opportunities for developing and maintaining solid basic skills in battle management and gunnery. Similarly, the Air National Guard has forged ahead in orchestrating the development of low-cost, high-fidelity Unit Training Devices (UTD) for fighter aircraft. Based on commercial-off-the-shelf (COTS) components, these UTD's provide valid procedural and tactical training for fighters without incurring actual flying hour costs and have been particularly beneficial for unit conversions. In ongoing initiatives, the Air Guard is pursuing the development of a next-generation simulator for the B-1 bomber and working closely with the Active component on linking simulators around the country for distributed interactive mission training.

Our citizen soldiers and airmen have come up with a number of other ideas for lowering the price tag of military strength. The Air National Guard and Air Force Reserve Command are teaming on a COTS-based aircraft upgrade program, Combat Quadrangle, that will give their aircraft around-the-clock combat capability, survivability in high-threat environments, data link systems, and precision attack at an eminently affordable price. The Army Guard has employed a slightly different but equally innovative and cost-effective approach to modernization in its RETROEUR (Retrograde of Equipment from Europe) program, in which Army equipment made excess by overseas force drawdowns is redeployed from Europe, repaired at Army Guard centers in the U.S., and redistributed among Active, Guard, and Reserve units.

Innovation, however, is not limited to acquiring better hardware at lower cost. Guard ingenuity is evident also in the development of better, more efficient proc-

esses to save time and money. As one example, the Army Guard's Home Station Mobilization initiative will reduce the cost of processing personnel mobilized for deployment and speed them to ports of embarkation more rapidly. Another, the Army Guard's Fort State initiative, is a proposal of truly blockbuster dimensions for leveraging existing Guard infrastructure and experience to provide services such as maintenance, supply, and transportation to the Active and Reserve components within States. The DRI called for outsourcing 150,000 commercially oriented military and civilian support positions; the NDP, 600,000. Under Fort State, many of these tasks would be "outsourced" to Guard installations where they could be consolidated for greater efficiency.

THE PATH AHEAD—TOTAL FORCE INTEGRATION

We in the National Guard are proud of our roles, both as the Federally tasked Global Guard and as "America's Team" for State and community missions. We are firmly dedicated to remaining key players in the Total Force of tomorrow and are working hard to foster still closer cooperation and integration between the Active and Reserve components.

Collaboration between the Active and Reserve components of the Air Force continues to set the standard for Total Force integration and interoperability. The Air Force elected to absorb almost 27,000 QDR manpower cuts—and the loss of one fighter wing equivalent—from the Active component while reducing the Reserve component by only 700 positions, plussing-up Guard fighter squadrons to 15 aircraft each, and transferring modern assets to Guard and Reserve units from Active ones. An Active Air Force officer last year became the first leader of an Air Guard unit when he assumed command of Connecticut's 103d Fighter Wing. And the Guard, Reserve, and Active Air Force consult regularly on mission distribution.

In its efforts to foster closer Active-Reserve ties, the Army National Guard completed its force-balancing exchange of 12,000 positions with the Army Reserve last year and is now implementing the Division Redesign program to convert 12 combat maneuver brigades into combat support and combat service support units. While complex—the process involves some 50,000 Guard members in more than 30 States—this is a high priority program to enhance the Army's deployability by providing augmentation in vital war mobilization and sustainment fields. The assignment of Active Army officers as commanders of selected Guard units continues. And in a bold move to break down communication barriers, the Army Chief of Staff has begun meeting with the Guard's State Adjutants General on a quarterly basis.

A number of other positive steps have been taken toward integration over the past year. At the recommendation of the DRI, up to half of the staff of the Directorate of Military Support, DOD's 911 service for disaster response, will be drawn from the National Guard, and the Deputy Director will be an Army Guard general officer.

In another initiative, the Secretary of the Army approved a plan to establish two fully integrated Active-Guard divisions, each composed of an Active component division headquarters and three Army Guard enhanced Separate Brigades. The first will be headquartered at Fort Riley, Kansas, and include mechanized infantry brigades from North Carolina, South Carolina, and Georgia. The second will be headquartered at Fort Carson, Colorado, and include infantry brigades from Oklahoma, Arkansas, and Indiana.

We are moving ahead on all fronts. Much remains to be done, but I am optimistic about the future in view of our accomplishments and progress over the past few years. America's National Guard has always answered the call of its communities, States, and nation. The men and women of the National Guard can be counted on to remain true to that heritage as we forge ahead into the landscape of tomorrow.

Senator STEVENS. Thank you.

First, let me on behalf of the committee thank you for all you have done to work with us to try and improve the conditions of the Guard. Your watch has really been a significant one, I think, in terms of the changing relationship between the Congress and the National Guard, and you have helped us in the so-called National Guard Caucus here to really call attention to all Members of the Congress the plight of the National Guard and Reserves, and I personally thank you.

I also personally thank you for coming with me to Alaska. I am sorry that you brought home so much fish. We will just have to leave that go. [Laughter.]

But I do thank you for your courtesy in coming to Alaska so often and really trying to find ways to improve the situation of the Guard up there.

Let me turn to General Navas.

STATEMENT OF MAJ. GEN. WILLIAM A. NAVAS

General NAVAS. Thank you, Mr. Chairman, members of the committee. Thank you for this opportunity again to talk to you today, as well as for your past support on the part of America's Army that is your National Guard. I have submitted a statement for the record, but would like to spend just a few minutes giving you some background on how we arrived at the present budget.

As you know, 1997 and 1998 were tough years for all of the Army, including the National Guard. The 1999 budget is in many ways a step forward. As submitted, it represents two things. First of all, it represents an unprecedented level of cooperative effort between the Department of the Army and OSD. For the first time in history, the National Guard funding issue was made a major budget issue within the Office of the Secretary of Defense level.

We started with a shortfall of \$113 million and at the Chief of Staff of the Army's request we worked with the Army staff and we were able to reduce that shortfall by \$197 million. That is the first time in my 10 years working in the Pentagon that I have ever seen a plus-up of the Guard accomplished inside the Army. That kind of progress is good news.

However, the second thing that this budget represents, as General Reimer told the other Chamber last week, is a shortfall of \$634 million to meet minimum readiness sustainment requirements of the Army National Guard.

General Reimer has said that he recognizes the severity of this problem and that is one of his highest priorities.

This shortfall means that our requirement will be met at only 71 percent. By comparison, the Active Army requirements are met at 80 percent, and the Army Reserve's requirements at 81 percent. When you consider that the Guard's requirements themselves have been tiered in accordance with defense planning guidance, meeting them at 71 percent amounts basically to a tax over a tax.

First, they are tiered to reflect the readiness levels required for our units that deploy later and then they are again funded at a lower level, and that is precisely where most of the shortfall will impact, disproportionately on the soldiers of those later-deploying units. It is on those units that training has already been drastically curtailed. It is in those units that hundreds of our finest NCO's must choose between going to training to lead their soldiers or going to schools to complete the courses of instruction that the Army has prescribed in order for them to remain eligible for participation in the Guard.

It is in those units that the special training assemblies are so necessary for the preparation of good training, and it is funded only at 11 percent, and it is at those units that full-time manning is at barebones subsistence levels.

PREPARED STATEMENT

In sum, we are making progress but we still have a ways to go, and I look forward to answering your questions, and thank you again for the support that this committee has given us.

[The statement follows:]

PREPARED STATEMENT OF MAJ. GEN. WILLIAM A. NAVAS

Mister Chairman, members of the subcommittee: Thank you for the opportunity to appear today and to provide an overview of current Army National Guard programs. I would like to begin by saying that 1998 finds the Army National Guard more active, with a higher operational tempo, than at any time in recent history. During the past year our personnel contributed nearly 7,500,000 man-days in support of DOD mission requirements, including deployments to over 70 nations worldwide. Even as overseas commitments reached new levels in 1998, Guard soldiers provided more than 280,000 man-days in support of domestic emergency missions here at home. Domestic Army National Guard missions encompass a wide variety of support, including disaster relief, medical support and humanitarian assistance operations. Additionally, this large domestic portfolio is expanding to encompass the emerging use of the Army Guard in dealing with the consequences of Weapons of Mass Destruction (WMD). In short, the Guard in 1998 finds itself working closely with the Active Army to meet increasing international and domestic mission requirements.

The maintenance of this high level of operational tempo has not come without cost. While I support the President's budget and the efforts of the leadership of the Army and DOD, the 1 percent Army-wide budget shortfall forecast by the Army affects the Army National Guard to a similar degree. This funding constraint will affect nearly every area of Army National Guard operations, including operations, training, education and maintenance activities. These resource constraints will continue to challenge the Army Guard even as we reach new levels of domestic and international support.

As Congress has repeatedly recognized in the past, modernization of Guard equipment is essential to the effective integration of Active Component and Guard forces. Initiatives like the Active Component/Reserve Component aviation modernization plan illustrate the effective cooperation in this area. In addition to aviation modernization, the ground force is seeing significant advances, with fielding of the M109A6 Paladin howitzer and additional Multiple Launch Rocket Systems currently underway. Initial fielding of the Avenger Air Defense platform is also taking place. These initiatives will enable the Guard to more effectively support DOD and Total Army requirements around the world.

Recruiting and retaining quality soldiers represents another continuing success story for the Guard. Last year the Army National Guard was the only Army component that exceeded its strength goal. In 1997 we established a strength target of 367,000 personnel, and we finished the year at 370,046 personnel—101 percent of our goal. I would add that although we did not make all of our acquisition quality goals, each soldier met the quality requirements for his or her Military Occupation Specialty (MOS) upon enlistment. Our overall quality is excellent. Sixty-two percent of our soldiers fall in Category I–IIIa, and 98.8 percent of our soldiers are high school graduates or the equivalent.

The Army National Guard continues to explore ways to deal with on-going resource constraints. Our efforts center upon the innovative use of current and emerging simulations technologies to reduce costs for military training and education. These efforts include a significant investment in distance learning and the use of low cost, high quality simulation technologies for training. Along with the Active Component, we foresee a simulation driven revolution in the way that our soldiers are educated and trained. In a world of increasing resource constraints, it is a revolution that must come sooner rather than later.

Despite resource constraints, the Army National Guard continues to work effectively in concert with the Active Component Army to meet the needs of the Department of Defense and the Nation. 1998 finds the Army National Guard an increasingly relevant force committed to serving in any required capacity.

FISCAL YEAR 1999 POSTURE STATEMENT

EXECUTIVE SUMMARY

Fiscal year 1997 witnessed an unprecedented level of activity and change for the Army National Guard (ARNG). Activities during this period included the continuing evolution of Guard force structure, on-going modernization initiatives aimed at ensuring continued mission relevance for Guard units, and increased efforts to support a work environment that engenders Total Army values and effective human relations among all Guard members.

The high Guard operations tempo (OPTEMPO) witnessed in fiscal year 1996 continued into fiscal year 1997 as the Army National Guard maintained its support for missions in Bosnia and other points worldwide. During fiscal year 1997, over 27,000 Army Guard soldiers deployed to more than 70 nations and provided over one million man-days in support of DOD mission requirements. Additionally, Guard soldiers and airmen provided over 280,000 man-days in support of 308 state missions, including disaster relief, medical support, humanitarian assistance, counter-drug, and counter-terrorism operations.

Even as the Army Guard experienced its highest OPTEMPO in recent years during fiscal year 1997, efforts continued to reorient Guard force structure and physical plant to meet the challenges of the post-Cold War world. The continuing reorganization of the Guard force structure necessitated large scale training in new occupation specialties and the extensive fielding of new and complex military equipment. The successful execution of this wide array of missions was due in large part to an amazing degree of dedication on the part of Army Guard soldiers and their families around the country and overseas throughout the world. With their help, the Army Guard successfully met all major challenges in fiscal year 1997.

In the years ahead, the Army National Guard leadership will continue to ensure that the Guard remains a multi-mission capable force that is both relevant and increasingly modern. As a first responder in both domestic and international missions, the Guard and its citizen soldiers will continue to justify the special trust placed in them by the nation they support.

THE ARMY NATIONAL GUARD: PAST AND PRESENT

The National Guard predates the founding of the nation and a standing national military by almost a century and a half. America's first permanent militia regiments, among the oldest continuing units in history, were organized by the Massachusetts Bay Colony in 1636. Since that time, the Guard has participated in every U.S. conflict from the Pequot War of 1637 to Operation Desert Storm in 1991.

The Army National Guard is a centuries-old institution, with roots deeper than the colonial "Minutemen." The Guard plays a vital role in our national defense and emergency preparedness systems. Today, the Guard has emerged as the foremost reserve of the Army, capable of providing organized and trained units to engage in missions shoulder to shoulder with the active Army.

A subject of extensive debate and compromise during the Constitutional Convention of 1787, the National Guard finds its origins in explicit provisions of the United States Constitution. Throughout the nation's history, the Guard has been an integral component of the defense and domestic emergency-response networks of the States and the United States. Federal law clearly sets forth the Army National Guard's Federal role: "to provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency and at such other times as the national security requires, to fill the needs of the armed forces whenever, during, and after the period needed to procure and train additional units and qualified persons to achieve the planned mobilization, more units and persons are needed than are in the regular components."

Detailed Federal guidelines, both statutory and regulatory, govern the organization and operation of the National Guard. Regulations issued by the National Guard Bureau spell out the policies, procedures, and responsibility of the Guard, and provide guidance for the employment of Army Guard units, personnel and equipment in support of State and local government authorities. The Federal government determines the number of authorized National Guard personnel and the unit mix available across the country. However, the States reserve the authority to locate units and their headquarters and Federal officials may not change any branch, organization, or allotment located entirely within a State without the approval of the governor.

Just as the Federal government's relationship to the wide range of State activities and responsibilities has evolved over the years, so too have the Federal and State roles of the National Guard changed in order to meet the national interest as well

as the particular needs and circumstances of each State and Territory. The Guard's unique status is exemplified by the fact that Guard members, unlike their counterparts in the active Army or Army Reserve, take an oath to their State constitutions secondary to their oath to the United States Constitution.

Today, the National Guard fulfills a vital national defense role. Strategic planning integrates Army National Guard units into crucial combat, combat support, and combat service support elements of our nation's military forces to provide a trained, capable, and cost effective military force, able to provide rapid augmentation, reinforcement, and expansion in time of call-up or mobilization. From its origins as a self-equipped, community militia in colonial times, the National Guard has emerged as a well-armed fighting force and a valuable component in the nation's emergency preparedness network, the only force with this dual responsibility.

CURRENT INITIATIVES

National Guard support at both State and Federal levels has long been a mainstay of our government's ability to meet the needs of its people. The Guard's primary federal mission is to provide trained and ready forces in support of the National Military Strategy (NMS). At the State level, the Guard provides forces that are effective, trained and ready, but here its purpose is to accomplish a wide variety of state requirements, including disaster relief, medical support, civil disturbance support to local authorities, counter-drug support and a variety of other missions. Among current Federal missions is Guard support to Bosnia. Management of the consequences of Weapons of Mass Destruction (WMD) use will soon be added to Guard mission requirements.

Guard Support Trends—Bosnia

Participation in Operation Joint Endeavor and Operation Joint Guard represents the largest overseas Guard deployment since the Gulf War. The Army Guard mobilized 3,482 soldiers from 97 different units and 42 States under Presidential Selected Reserve Call-up (PSRC) authority in support of Operation Joint Endeavor/Guard in Europe. The Bosnia mission provides a look at the future of the Guard.

Requirements arising from the Bosnia mission have had an impact on almost all major Guard formations. For example, all eight National Guard Divisions have contributed to Bosnian mission support. Additionally, October 1997 saw the first overseas operational deployment of an ARNG combat unit in recent times as members of the 29th Infantry Division (Light), Virginia ARNG and Maryland ARNG, departed for duty in Bosnia.

As the upward trend in support for non-traditional missions like Bosnia continues, Army Guard Combat, Combat Support and Combat Service Support formations will be increasingly challenged.

An Emerging Mission—Weapons of Mass Destruction

In an event of far reaching consequences for the Guard and the Nation, the Congressionally mandated "Defense Against Weapons of Mass Destruction Act of 1996" charged the Department of Defense with the domestic anti-terrorism mission.

In early 1995, Congress directed that a program be established "to improve the capabilities of State and local emergency response agencies [to deal with the WMD threat], and the National Guard provides the States with a ready asset to augment first responders." In keeping with this sentiment, the Emergency Response Assistance Program (ERAP) was signed into law as a part of the Fiscal Year 1997 Defense Authorization Act. This law mandated that DOD assist State and local emergency responders in training and the loan of appropriate equipment. This legislation further designated the National Guard as a means of support for these state and local organizations. Because of its experience in working with state and local organizations, the National Guard is uniquely positioned to assist these agencies.

Acting on the recommendations in the ERAP, Congress appropriated \$10 million in fiscal year 1998 for detailed planning and concept studies designed to facilitate ARNG participation in addressing the terrorist WMD threat. Included in these studies will be a work plan that focuses on a four pillared approach to the mission: information and architecture; infrastructure; doctrine and training; and force structure.

Pillar I: Information and Architecture

Information management and an effective communications architecture will be critical parts of the Guard WMD consequence management effort. As a result, the first pillar of the Guard WMD study involves use of Federal Emergency Management Administration's (FEMA) Emergency Information system (EIS) software. The EIS provides a variety of standardized emergency management functions, including near real-time mapping, communications and integrated information flow at the

state and local levels. The Guard will use the Reserve Component Automation System (RCAS) to interface with EIS as it integrates ARNG capabilities with those of FEMA. With the full integration of FEMA and ARNG information architectures, it is expected that the Guard communications infrastructure will function as a national communications highway for the flow of domestic emergency information. This information management system can also assist other government agencies, as well as supporting development of the Global Disaster Information system (GDIS).

Pillar II: Infrastructure

A central reason for the emerging Guard WMD mission lies in the unique Guard domestic support capability. With a wide variety of communications and logistics assets in all 54 States and Territories, the Guard continually responds to a variety of natural and man-made disasters.

At the implementation level, the Guard can provide planning and exercise coordination for disaster response training, as well as assisting in the procurement of urgently needed equipment. Additionally, in 45 percent of the states, the Adjutant General is also the State Emergency Management Officer, thus providing a direct link between the Guard and the State agencies it supports. Finally, when the Guard completes the EIS communications integration outlined in Pillar I, every armory can serve as a Operations Center or Disaster Field Office if necessary. The combination of Guard infrastructure and State level integration will greatly improve the nation's ability to deal with the use of WMD and all other disasters as well.

Pillar III: Doctrine and Training

No effort as broad and far reaching as the anti-terrorism/WMD program can be effective without proper doctrine and training for those involved in the program. During fiscal year 1998, \$466,000 will be used for training to be conducted by the National Interagency Counterdrug Institute (NICI). NICI, which provides training and military support operations to DOD agencies, is working with NGB to develop new courses that will train Guardsmen in their responsibilities as first responders. Additional courses on the specific nature of WMD are also planned. Use of the National Guard Distance Learning Network (See Training Technologies—Distance Learning) to support the teaching of these classes is also being considered. The Guard Distance Learning Network is also available to other agencies for WMD and related instruction on a space available basis.

Pillar IV: Force Structure

The final component of the Guard WMD study plan involves development of the force structure necessary to implement DOD WMD directives. In September 1997 the Secretary of Defense directed the development of "a complete model for the integration of the RC into Consequence Management Planning for WMD domestic terrorist incidents." To that end, a Joint Service Tiger Team was established in November 1997 and charged with several missions:

- Develop a response model and identify requirements.
- Identify missions, areas of operations and units.
- Determine manpower, equipment and training shortfalls.
- Determine funding requirements for start-up and Operations and Maintenance (O&M).

The completed plan was briefed to the Deputy Secretary of Defense (DEPSECDEF) in mid-December 1997.

Current Status

The Deputy Secretary of Defense recently provided the ARNG \$23 million and 220 Active Guard and Reserve (AGR) personnel authorizations to support WMD related activities in fiscal year 1999. This support includes funding for the upgrades to current chemical decontamination and reconnaissance capabilities. When formed and trained, Guard units with WMD capabilities will retain day-to-day mission requirements while maintaining a stand-by national consequence management capability. Additionally, these units will conduct first responder training at the local level and be prepared to provide consequence management augmentation for the Commanders in Chief (CINC). The Study Work plan will examine the best way to attain the most appropriate force structure.

Support for the development of a robust Guard WMD consequence management capability comes from the highest levels of government. Secretary of Defense William Cohen noted, "The Guard and Reserve are going to play a major role in dealing with detection of chemical and biological weapons. These responsibilities will include how to intervene and how to deal with the victims of terrorism when it occurs."

ARMY NATIONAL GUARD VISION 2010

Army National Guard Vision 2010 is the conceptual link between America's community based land force to Army Vision 2010, "Army After Next" and Joint Vision 2010. ARNG Vision 2010 outlines a full commitment to implementing the joint operational concepts of dominant maneuver, precision engagement, focused logistics, and full-dimension protection—a seamless force.

With 34 percent of the Army's strength, more than half the combat power, nearly 70 percent of field artillery, and more than a third of Total Army combat support and combat service support capabilities, the Army National Guard is a full partner in rapid strategic mobility, and tailor-to-task organizational flexibility.

Ultimately, the Army National Guard will increase its key role in a seamless force that can be committed cross-dimensionally along the entire spectrum of contingencies. Through the alignment of warfighting missions and capabilities, and the integration of Active, Guard, and Reserve units, America's Army will continue to provide a force of trained leaders and soldiers.

In doing so, we will achieve our common goal of shaping a joint force to accomplish our primary task: to deter conflict—but, should deterrence fail, to fight and win our nation's wars.

Effective State Support

Our equally vital role of providing assistance and support to our states and territories will not change. States' Adjutants General and their respective Governors, who serve as peacetime Commanders in Chief, rely heavily on the embedded capabilities and training of Army Guard units. The assessable, flexible, and effective response of the Guard during domestic and community support missions will continue to play a central role in state level support planning and mission execution.

With 3,222 armories in 2,700 communities across America, the Army Guard provides community visibility and presence that is increasingly critical in an age when general military experience and familiarity have steadily declined. This community based force will continue to provide a host of other capabilities that guarantee ARNG vitality at the State and Federal level through 2010 and beyond.

SHAPING THE 21ST CENTURY

Reaching the goals outlined in Vision 2010 presents the Guard with significant challenges in the years ahead. Efforts are, however, already underway to move the ARNG along the road to ensure a successful "vision implementation". These initiatives include the on-going Army National Guard Division Redesign Study (ADRS) and placement of Active Component Officers in selected ARNG leadership positions. In the logistical arena, the new Fort State initiative promises to significantly streamline the ARNG/Active Component infrastructure requirements. These and other initiatives will serve to reshape the ARNG as it enters the 21st Century.

Division Redesign

Efforts to mold a force capable of addressing the likely threats of the next century are not confined to the National Guard. In May 1995, the Commission on Roles and Missions recommended that the Army reorganize lower priority Reserve Component forces to fill force shortfalls in higher priority areas. In keeping with this recommendation, the Army conducted Total Army Analysis 003 (TA003) in late 1995 to determine potential shortfalls in personnel required to implement the National Military Strategy (NMS). As a result of TA003, the Army determined that nearly 124,800 additional Combat Support and Combat Service Support (CS/CSS) personnel would be required to fully implement the NMS. Following this conclusion, the ARNG commissioned the Army National Guard Division Redesign Study (ADRS) to examine ways it could address this shortfall in CS and CSS personnel.

As a result of the study, the Guard will convert a number of units from Combat to Combat Support and Combat Service Support formations in the coming years. Among other suggestions, the ADRS recommends the conversion of up to 12 ARNG combat brigades and their associated divisional slice elements to CS/CSS units during fiscal year 1999–2012.

Implementation of the ADRS will occur in four phases. Three combat brigades will be converted in each of phases one and two. Phases three and four will see conversion of remaining units in the two ARNG divisions affected by the redesign. The end state will find the two affected divisions fully converted to CS/CSS or composite divisions. The first Brigades designated for conversion were tentatively identified at the Division Project Action Committee (DIVPAC) in December 1997.

Current Status

Recent events have resulted in a decision by the Army to accelerate the ADRS conversion process. Following guidance from the Secretary of the Army, funding will be included in upcoming Program Decision Memorandums (POM) to procure necessary conversion equipment by fiscal year 2007 and to complete the conversion process by fiscal year 2009.

Active Component/National Guard Divisional Integration

An additional proposal contained in ADRS established two AC/NG Integrated Divisions, each consisting of an active Army headquarters company (staffed by some of the 5,000 AC support personnel) and three eSB's. A Division Commander would become responsible for the combat readiness of the three brigades and the other elements necessary to create a full division capable of deploying in wartime.

This concept was approved by the Secretary of the Army and Forces Command is now in the process of implementing it. The 30th Mechanized Infantry Brigade (North Carolina), the 218th Mechanized Infantry Brigade (South Carolina), and the 48th Mechanized Infantry Brigade (Georgia) will make up a division headquartered at Fort Riley, Kansas with a forward element at Fort Jackson, South Carolina. The other Integrated Division, to be headquartered at Fort Carson, Colorado, will be composed of the 39th Infantry Brigade (Arkansas), the 45th Infantry Brigade (Oklahoma), and the 76th Infantry Brigade (Indiana) and will have a forward element at Fort Polk, Louisiana. The activation date for the two divisions is planned for 1 October 1999.

AC Officers Serving in Key Positions in the ARNG

Demonstrating their commitment to more effective integration, Active Component and Guard leaders implemented a test program placing limited numbers of Active Duty Officers in ARNG command positions when requested by an Adjutant General. The intent of the program is to foster a greater degree of understanding between members of the active and reserve forces. While available commands and categories for this initiative are currently under review, placing AC officers in command of ARNG troops demonstrates a tremendous degree of resolve on the part of AC and Guard leaders.

Fort State

The ARNG's Fort State initiative seeks to leverage existing infrastructure and experience within states and territories to perform services such as maintenance, calibration, controlled humidity preservation, supply, and transportation within DOD at reduced cost. Under the Fort State concept, entire states are considered to be "installations" as defined in Army Regulation 5-9. This allows the use of ARNG maintenance and logistics assets anywhere in the state to support DOD requirements, rather than restricting these activities to the confines of military bases.

A Fort State feasibility analysis, undertaken at the request of the Active Army leadership, will examine Total Army requirements as set against ARNG state level capabilities. The economy achieved through more efficient use of various support functions at the state level will both save money and further strengthen Active Component—ARNG integration and cooperation. The final Fort State study, due in fiscal year 1998, will be an implementation plan to provide quality, low cost services to customers throughout the Department of Defense.

READINESS

Army National Guard readiness goals include sustaining a highly trained and ready force that meets all wartime operational, logistic, and personnel standards. The ARNG is a leader in programs designed to enhance the readiness of high priority units. Chief among its programs are efforts to maintain open lines of communication. Each month, the Director of the ARNG presents issues/and or problems to the Army's leadership during the Chief of Staff of the Army's (CSA) Monthly Readiness Review. The Director of the ARNG also provides quarterly reports to the Commanding General, Forces Command. The Army National Guard staff conducts on-site visits and video teleconferences (VTC) with major combat units and high priority units to achieve and improve unit readiness. All of these activities serve to ensure Guard readiness at the highest possible levels.

Fiscal year 1998 unit training readiness highlights will include unit rotations at the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana as well as the National Training Center (NTC) at Fort Irwin, California for Oregon's 41st Infantry Brigade (JRTC) and Idaho's 116th Cavalry Brigade (NTC) respectively. Preparatory leader development training, as well as the exercises themselves, will demonstrate

the ability of the Army National Guard to fully meet its assigned readiness goals in a crisis or wartime scenario.

Forward Support Package Readiness

Guard Forward Support Package (FSP) units are CS and CSS units designated to support Active Component divisional, Corps and Theater level units. Slated to respond to the NMS's two nearly simultaneous Major Theater War (MTW) scenario, the 209 ARNG FSP units are the highest priority Guard units. These units support 5½ AC divisions, two Corps headquarters, and two theater slices. Between the October 1996 and October 1997 Unit Status Reports (USR), there was a 3 percent decline in FSP readiness due to a 2 percent decrease in duty military occupational specialty qualified (DMOSQ) soldiers and a 3 percent decline in equipment on hand. Currently, there are 4 FSP units deployed in support of Operation Joint Guard in Bosnia.

eSB Readiness

The fifteen enhanced Separate Brigades (eSB) of the ARNG are the principal Reserve Component ground combat maneuver force of the Army. A new structure within the Guard, eSB Brigades, are expected to achieve readiness goals of personnel, equipment on hand, equipment serviceability, and training by its scheduled 30 September 1999 deadline.

The ARNG is working hard to assist in meeting eSB readiness goals. In order to ensure that Guard eSB successfully achieve targeted readiness levels, the ARNG is using video-teleconferences to track management by objectives and resolve issues regarding eSB modernization and readiness.

In fiscal year 1997 the Army National Guard divisional units supported Forces Command (FORSCOM) lane training for enhanced Separate Brigades during the 1997 Annual Training Period. This approach to training provided a dual readiness benefit—as the eSB's trained attack and defend mission profiles, opposing forces from divisional formations provided these units opportunities to train on the opposite task. This provided an excellent force-on-force training environment in a very cost effective manner. The eSB's were provided with a "tailor made" OPFOR, designed to meet their requirements, while the ARNG divisions received training opportunities that would not otherwise have been available.

Divisional Readiness

Recent trends in readiness funding continued to provide challenges for the eight ARNG Divisions in fiscal year 1997. As was the case in fiscal year 1997, the level of funding in fiscal year 1998 will continue to generate resources for minimal divisional readiness and deployability. This resourcing is sufficient to provide 28 miles out of a required 288 miles for each M1 Abrams tank in the armored and mechanized divisions. Maintenance personnel in these units conduct repairs on their M1's using initial issue repair parts that are still available. Additionally, current resource levels support required professional education in lieu of Annual Training (AT) for many Guardsmen assigned to the divisions. Finally, current divisional resource levels typically support separate eight hour daily drill sessions rather than continuous Saturday through Sunday weekend drill periods.

Home Station Mobilization

Home Station Mobilization (HSM) is an initiative proposed by the ARNG during the Power Projection Functional Area Assessment (FAA) conducted by Forces Command (FORSCOM). HSM empowers the State Area Commands (STARC) to assume responsibility for all mobilization inprocessing activities now conducted by mobilization stations. Following STARC processing, a unit selected for HSM would by-pass the traditional mobilization station and move directly to their ports of embarkation. The STARC's would also validate HSM units for deployment. As a direct result of this program, early deploying units would be available much more rapidly by eliminating time required for movement through a separate Active Component installation prior to embarkation.

The Army National Guard has successfully demonstrated its capability to conduct HSM's over the past two years. To date, sixteen units have Home Station Mobilized and deployed in support of Operation Joint Guard. United States Army, Europe (USAEUR) Deputy Chief of Staff for Operations (DCSOPS) made the following comment: "HSM has demonstrated that it can effectively augment the traditional mobilization process. This can be invaluable during a large scale mobilization and could reduce the surge on the traditional mobilization stations."

Budget

The Army National Guard is funded by three separate budget appropriations: Personnel (NGPA), Operations and Maintenance (OMNG), and Military Construction (MCNG). The ARNG fiscal year 1999 Budget Estimate Submission (BES) for these three accounts totals nearly \$5.9 billion. This represents approximately 9.3 percent of the Army's \$63.4 billion budget for this period. In addition, the Army has identified in its investments accounts, equipment that may be distributed to the ARNG for implementation of the Division Redesign, which converts up to 12 ARNG Brigades to Combat Service/Combat Service Support to meet the demands of the Army.

ARMY NATIONAL GUARD APPROPRIATIONS BY FISCAL YEAR

[Dollars in millions]

	1996	1997	1998	Change from 1997 (per- cent)
Personnel	\$3,349	\$3,397	\$3,334	- 1.85
Operations and maintenance	2,444	2,298	2,419	+ 5.27
Military construction	137	78	118	+ 51.28

RECRUITING

The Army National Guard continued its aggressive recruiting efforts in fiscal year 1997. Recruiting goals for the year included maintaining a 367,000 end strength consisting of 41,659 commissioned and warrant officers and 325,341 enlisted soldiers. In pursuit of these ambitious goals, gains of 59,262 enlisted and 4,163 officers were planned for the year. Recruiting managers also assumed that enlisted losses during this period would not exceed 62,528 personnel.

The Guard was extremely successful in its fiscal year 1997 recruiting efforts, attaining an end strength of 370,046—101 percent of the fiscal year 1997 objective. At the end of fiscal year 1997, ARNG end strength included 40,756 officers and 329,290 enlisted personnel. Non-prior service accessions quality is good. The Guard met the Army quality goal of no more than 2 percent Test Category (TC) IV. The Guard fell short of the DA goal of 90 percent High School Diploma Graduates (HSDG) and 67 percent TC I-IIIa. We assessed 82.8 percent HSDG and 17.2 percent General Education Diplomas (GED), and did not enlist any non-high school graduates in fiscal year 1997. The Guard recruited 55.4 percent TC I-IIIa.

The ARNG recruiting strategy ties recruiting and retention into attrition management. The foci of attrition management are to recruit quality soldiers, to retain MOS qualified soldiers and to reduce the loss of first term soldiers to the lowest rate possible. Guard attrition management efforts were very successful in 1997, with 107.1 percent of recruiting goals met with just 18.1 percent attrition during the same period.

Retention Incentives

The Army Guard continues to offer education incentives through the Montgomery G.I. Bill. Enlistment in the Guard for six years provides financial assistance of \$208.93 a month for full-time post-secondary education or up to \$7,521.48 over a 10 year period. Enlistment bonuses for enhanced units, reenlistment bonuses for everyone, and affiliation bonuses have been reauthorized to those who qualify.

FORCE COMPOSITION

Category	Total	Strength
Minority Officers	5,297	13.0 percent of assigned.
Minority Enlisted	89,906	27.3 percent of assigned.
Total Minority Membership	95,203	25.7 percent of assigned.
Black Officers	2,632	6.5 percent of assigned.
Black Enlisted	55,032	15.6 percent of assigned.

FORCE COMPOSITION—Continued

Category	Total	Strength
Total Black Membership	57,664	15.6 percent of assigned.
Hispanic Officers	1,646	4.0 percent of assigned.
Hispanic Enlisted	23,863	7.2 percent of assigned.
Total Hispanic Membership	25,509	6.9 percent of assigned.
Women Officers	3,409	8.4 percent of assigned.
Women Enlisted	30,846	9.4 percent of assigned.
Total Women Membership	34,255	9.3 percent of assigned.

The ARNG exceeded the fiscal year 1997 goal of 59,267 accessions by actually accessing 63,495 personnel, which was 107 percent of the goal. Non-prior service accessions totaled 28,378, or 47.8 percent of program. Prior service accessions constituted 35,117 personnel, or 59.2 percent of program. Of non-prior service accessions, 100 percent possessed high school or equivalent degrees with 55.4 percent scoring in the highest test categories. Only 1.8 percent scored in the lowest test categories.

FULL-TIME SUPPORT

The Army National Guard's (ARNG) Full-Time Support (FTS) Program was established by Congress to organize, administer, recruit, train, and maintain Army National Guard units. The FTS program provides two distinct types of personnel—Active Guard and Reserve (AGR) soldiers and Military Technicians (MT). AGR soldiers perform a variety of day-to-day military duties, while Military Technicians provide numerous maintenance and logistical support related functions. FTS manpower requirements are established by workload-based staffing standards (the number and type of required personnel) in training support, recruiting, maintenance, and readiness management workcenters. Requirements are determined through a detailed analysis of workload in each case. Grades are determined through classification studies.

The Army National Guard receives FTS authorization levels from Congress via the National Defense Authorization Act and allocates full-time resources to the States and Territories on a “first-to-fight, first-to-resource” methodology. This resourcing methodology results in a greater percentage of FTS personnel being assigned to, and in support of, early deploying Force Support Package units and enhanced Separate Brigades.

The Army National Guard provides justification to the Department of the Army, Department of Defense, Congress and other interested parties to ensure directed missions are supported with adequate levels of FTS personnel.

In fiscal year 1998, Congress authorized the ARNG 22,310 AGR soldiers. The projected Congressional AGR authorization for fiscal year 1999 is 21,763. Congress also authorized Military Technician strength for fiscal year 1998 at 24,974 (this figure includes 2,400 non-dual status technicians). Fiscal year 1999 projected Military Technician strength is expected to decrease to 23,815. Both the AGR and Military Technician programs are expected to continue experiencing significant reductions in the future. The 1998 National Defense Authorization Act reduces the non-dual status Military Technician positions 50 percent by fiscal year 2002 and totally eliminates them by fiscal year 2007.

Active Duty for Special Work (ADSW)

More than 1,340 Guard soldiers participated in the Active Duty for Special Work (ADSW) program during fiscal year 1997. Used to support special projects, ADSW tours are temporary, lasting 179 days or less. Projects included events such as command and staff visits, annual medical/dental screenings, operation of training activities, unit conversions to new weapons systems, study groups, support at training sites and exercises, and short term mission and administrative support.

Active Guard Reserve (AGR)

AGR soldiers perform numerous daily organizational management functions that are essential to the operational capability of Guard units nationwide. Funding for

these essential personnel for fiscal year 1999 is projected at 58 percent of requirements. The Guard is actively pursuing initiatives designed to stabilize and ultimately restore support for required AGR manning.

In addition to financial issues, the development of an effective AGR officer progression program also poses challenges for the ARNG. An increase in the number of controlled grades is needed to allow better management of AGR officer and enlisted progression. This increase would also provide increased promotion opportunities for junior enlisted AGR personnel.

Reductions in overall AGR strength are programmed. The Temporary Early Retirement Authority (TERA) program is used as a force-shaping tool to assist in achieving these reductions. A total of \$13.2 million was appropriated for fiscal year 1998 to facilitate the reduction of 488 AGR officers.

Resourcing for the AGR program continues to decrease even as the need for these personnel increases. A reduction of 450 AGR authorizations is scheduled in fiscal year 1999 with an additional 1,000 AGR soldiers programmed to leave the force between fiscal year 2000 and fiscal year 2002 as a result of Quadrennial Defense Review impacts. Continued funding of transition benefits is an important element in the AGR strength management plan.

AGR RAMP

	Required	Authorized	Percent (req/auth)
1993	40,475	24,686	61
1994	40,376	24,180	60
1995	40,330	26,350	59
1996	39,689	23,390	59
1997	37,594	22,655	62
1998	38,547	22,310	58
1999	38,458	21,763	56
2000	38,403	21,313	55
2001	38,403	21,053	55
2002	38,403	20,763	54

Military Technicians

Military Technicians are civilian employees of the Guard who perform a myriad of maintenance and associated logistical support functions. These functions, which include essential equipment maintenance and logistical support activities, are critical to the deployability of Guard units throughout the country.

The ARNG Military Technician strength for fiscal year 1998 will be 24,974, a decrease of 512 from fiscal year 1997. Projected authorized positions for fiscal year 1999 total 23,815 which represents 56 percent of the Guard's validated 42,473 Military Technician requirement. Despite force structure reductions, equipment modernization initiatives continued to generate increased requirements for Military Technicians. Modern equipment such as the Apache helicopter, Abrams tank, Bradley Fighting Vehicle, Patriot Missile and Multiple Launch Rocket Systems (MLRS) require more maintenance manpower than the equipment replaced by these systems. Guard units can operate and maintain these systems at a cost saving to the Total Force, but doing so requires more Full Time Support.

The combination of Military Technicians and AGR's remains the most efficient means of manning the ARNG's FTS program. The FTS program objective remains unchanged—to enhance unit readiness and deployability through improved training, personnel administration, maintenance and supply for soldiers and their equipment.

MILITARY TECHNICIAN RAMP

	Required	Authorized	Percent (required/authorized)
1993	37,495	27,084	72
1994	37,317	27,259	73
1995	39,340	25,489	65
1996	38,617	25,500	66

MILITARY TECHNICIAN RAMP—Continued

	Required	Authorized	Percent (re- quired/au- thorized)
1997	44,115	25,500	58
1998	42,521	24,974	59
1999	43,867	23,815	56
2000	43,721	23,161	55
2001	43,721	22,671	55
2002	43,721	22,237	55

EQUIPMENT MODERNIZATION

Intensive efforts to modernize Guard Combat, Combat Support and Combat Service Support systems continued throughout fiscal year 1997. These efforts affected virtually every major Guard organization and most major ARNG aviation and ground combat systems.

Aviation Modernization

UH-60, C-23, and C-12 series aircraft were the focus of aviation modernization efforts during fiscal year 1997. The Army National Guard continues to intensively monitor the modernization of aviation units equipped with the UH-60A/L utility helicopters. A total of 298 UH-60A and 76 UH-60L helicopters have been distributed to Army National Guard units. This quantity represents about 40 percent of the Army National Guard total requirement of 939 modern utility helicopters. Planned UH-60L procurement for Active Army units will release additional UH-60A helicopters for redistribution to Army National Guard units. After redistribution, the Army National Guard will still be short 444 of the total UH-60 requirements, based on final retirement of all UH-1 helicopters by the year 2000.

Ground System Modernization

On the ground, Total Army field artillery modernization efforts provided resourcing for 18 ARNG M109A6 PALADIN howitzer battalions. Nine PALADIN battalions will be fielded to Echelons Above Division (EAD) units, eight will be fielded to the heavy enhanced Separate Brigades, and one is to be fielded to a strategic reserve brigade. Fielding will begin in fiscal year 1998 and concludes in fiscal year 2001. A total of four additional Multiple Launch Rocket System (MLRS) battalions were resourced for the ARNG. Kansas and South Carolina completed fielding during fiscal year 1997, while Arkansas and South Dakota are scheduled to begin fielding in fiscal year 1998, with completion by fiscal year 1999. The ARNG fire support force will include a total of 10 MLRS battalions at the end of fiscal year 1999.

The ARNG completed the fielding of the M1 Abrams Tank to all armor and cavalry units in fiscal year 1997.

Modern Bradley Fighting Vehicles (BFV) (M2A2/M3A2) have been distributed to four of the eight heavy enhanced Separate Brigades: the 48th Infantry Brigade (Mechanized), the 116th Armored Brigade, the 155th Armored Brigade, and the 278th Armored Cavalry Regiment. Although they are authorized the M2A2/M3A2 model (483 M2A2's and 52 M3A2's), the remaining four heavy enhanced Separate Brigades, 30th Infantry Brigade (Mechanized), 218th Infantry Brigade (Mechanized), 256th Infantry Brigade (Mechanized), and 81st Infantry Brigade (Mechanized) are equipped with the basic M2.

This second group of enhanced Separate Brigades was originally scheduled to receive M2A2/M3A2 series vehicles by fiscal year 2000. Unfortunately, this fielding has been postponed to fiscal year 2008 through fiscal year 2010. The Army National Guard continues to work with the Department of the Army (DA) Staff to find modernized equipment to support Army National Guard requirements. The 49th Armored Division was fielded 303 M2A0's/M3A0's in fiscal year 1997.

The Army National Guard major missile materiel modernization effort in fiscal year 1997 was the Avenger Fire Unit. Nine Avenger unit conversions are programmed to occur in Florida, Ohio, New Mexico and South Carolina between fiscal year 1997 and fiscal year 1999. Air Defense Artillery Avenger/MANPADS (Man Portable Air Defense System) battalions were approved for the Army Guard as replacements for current Hawk and Chaparral battalions. These battalions will provide for the entire Army Corps Short Range Air Defense (SHORAD) mission. Two additional battalions have been programmed for fiscal year 2000-03. By the end of

fiscal year 2003, all Army National Guard ADA Avenger/Stinger battalions will be 100 percent filled with Avenger Fire Units.

Requirements for the movement of heavy vehicles and equipment (such as M1-series tanks) on the battlefield are met with the M1070/M1000 Heavy Equipment Transportation System (HETS). The Army National Guard has a requirement for 927 of these modern 70-ton capacity systems; there are currently 385 on-hand. This year, elements of the Tennessee Army National Guard received a partial issue of 77 new HETS's. The Army National Guard will work with DA to prioritize the purchase of additional HETS's to fill other high priority units with this highly capable tractor/trailer combination (the only tractor/trailer combination that can move the M1A1 Abrams Main Battle Tank).

National Guard and Reserve Equipment Appropriation

In fiscal year 1998 National Guard and Reserve Equipment Appropriation (NGREA) funds were used to purchase night vision goggles, engineer construction equipment, tactical wheeled vehicles, and training simulation equipment. This equipment is critical to improving the readiness and deployment posture of many Army National Guard units.

ARNG units must be properly equipped to perform assigned missions side-by-side in America's Army with Active Component (AC) units and coalition partners.

RETROEUR

The Army National Guard's program to redeploy, repair, and redistribute excess Army equipment from the draw down of forces in Europe continues to be a resounding success. Today, there are five operational Army National Guard RETROEUR (Retrograde of Equipment from Europe) repair sites: Fort Riley, Kansas (wheeled and track equipment); Camp Shelby, Mississippi (wheeled and track equipment); Piketon, Ohio (engineer and wheeled equipment); Fort Indiantown Gap, Pennsylvania (M3A2 Bradley and wheeled vehicles); Camp Withycomb, Oregon (communications-electronics equipment); and Blue Grass Station, Kentucky (receive, classify, and redistribute non-rolling stock equipment).

Federally reimbursed state employees comprise the workforce for these sites except for Fort Indiantown Gap, Pennsylvania and Camp Withycomb, Oregon where temporary federal employees make up the work force. Of the 350 employees, 75 percent are Army National Guard soldiers and 25 percent are civilians.

As of November 30, 1997, RETROEUR repair sites have received 8,610 vehicles and 17,400 pieces of communications-electronics equipment. Vehicles received thus far include M1A1 tanks, M113 personnel carriers, M3A2 CFV's, M88 tank recovery vehicles, High Mobility Multipurpose Wheeled Vehicles (HMMWV), CUCV's, and five-ton trucks. Once an item has been repaired, the Army Material Command directs the shipments to organizations within all three components of the Army. A total of 5,844 vehicles and 9,846 communications-electronics items have been repaired.

In addition to providing a valuable means to redistribute assets within America's Army, the RETROEUR initiative provides hands-on maintenance, supply accountability, and warehouse management training for many Army National Guard soldiers. The Army National Guard RETROEUR Program has enhanced the equipment readiness of the Active Army, Army National Guard, and Army Reserve. The RETROEUR program is scheduled to complete all work by the end of fiscal year 1998.

FACILITIES MANAGEMENT

The Army National Guard operates over 3,200 owned and 90 leased armories in 2,700 communities in all 50 states, Puerto Rico, the Virgin Islands, Guam, and the District of Columbia. In addition, the Army National Guard federally supports the operation and maintenance of more than 18,000 training, aviation, and logistical facilities located throughout the nation.

Military Construction

Fiscal year 1997 saw a number of much needed military construction projects initiated throughout the nation. In all, 50 major construction projects worth over \$179.5 million were awarded in fiscal year 1997. An additional 39 projects are scheduled to be awarded in fiscal year 1998. The fiscal year 1997 appropriation of \$78 million funded 16 projects, including \$52 million for major construction, \$20 million for planning and design and \$5.5 million for unspecified minor construction.

Facility Operations and Maintenance

In fiscal year 1997, \$203.5 million, or \$3.13 per square foot, was provided for real property operations and maintenance, about \$26.3 million less than in fiscal year 1996. This program pays for salaries required to support facility operations and maintenance as well as providing funds for utilities, minor construction, maintenance and repair projects, and supplies required to extend the useful life of National Guard facilities. The Federally supported square footage increased from 62.6 million square feet in fiscal year 1996 to 65 million square feet in fiscal year 1997, just as equipment modernization and aging facilities have increased overall maintenance requirements. In fiscal year 1988, \$3.41 per square foot was available to operate and maintain Army National Guard facilities. In fiscal year 1998, that amount is \$2.95 per square foot, or \$2.30 in constant fiscal year 1988 dollars; a decrease of over 30 percent.

Base Realignment and Closure Commission (BRAC)

The BRAC Commission findings and recommendations in June of 1995 will result in the transfer of four active component installations to the National Guard over the next few years. Transfer of Fort Pickett, VA, and Fort Chaffee, AR, are scheduled for 1998. Fort Indiantown Gap, PA, is scheduled to transition in 1999 and Fort McClellan, AL, in 2000.

OPERATIONS AND MAINTENANCE

In the upcoming year, the Army Guard will press on with its effort to forge a military that is "second to none" when meeting its tough federal and domestic agenda. In times of national emergency—military or budgetary—our free society has demanded much from its citizen-soldiers and, as the following pages will attest, no other force has responded more effectively to that call than the Army National Guard.

The Year in Review

In 1997, Army National Guard soldiers deployed to Europe for Operation Joint Endeavor/Guard. More than 27,600 of our soldiers went overseas to support these real-world missions and other training. Domestically, the Guard expended over 280,000 man days to respond to natural disasters and in the performance of other state duties. All of these requirements were accomplished simultaneously with the inactivation of 416 Army Guard units or elements of units, personnel reductions in excess of 10,608 positions, changes to unit missions and ambitious annual training and equipment modernization programs. Throughout this period, Guard soldiers and their families remained the centerpiece of the ARNG strategy. Today, more than ever, the all-volunteer force relies heavily on Guard families' resolve and commitment as well as a strong community support base. The many personal and professional sacrifices ARNG soldiers and their supporters make in peace and war will continue to be the benchmark upon which all other reserve forces in the world are measured and tested.

The Army National Guard Overseas

During fiscal year 1997, Army National Guard soldiers deployed overseas for real-world missions, to support combatant commands and United Nations Peacekeeping Forces, and to participate in routine training exercises. Army Guard units also supported overseas commanders-in-chief strategies for nation assistance. In all, 27,665 soldiers deployed overseas.

Task Force ABLE SENTRY (TFAS) Initiative

In August 1997, 65 Army National Guard soldiers from three states deployed to TFAS in Macedonia as part of the 1st Armored Division's TF 1-6. The TFAS mission is to ensure that the unrest in former Yugoslavia does not spill over the border to the South, into Macedonia. The battalion task force assumed the TFAS mission on 5 September as part of the United Nations Preventive Deployment Force in Macedonia. The following units were tasked to provide the first Combat Support/Combat Service Support slice to TFAS:

Presidential Selective Reserve Call-up (PSRC) Support to Task Force Able Sentry

<i>Units/State</i>	<i>Soldiers</i>
220th Military Police Company/CO	9
1-106th Aviation Assault Battalion/IL	22
203rd Engineer Battalion/MO	34
Total	65

These soldiers returned in early 1998 after a six-month rotation with TFAS. The initiative has been an overwhelming success not only for the ARNG, but also for America's Army in our fulfillment of U.S. national objectives.

The Guard's two Special Forces (SF) Groups supported Joint Chiefs of Staff (JCS) exercises and Joint Combined Exercise Training (JCET). In the Pacific Theater, these exercises included Foal Eagle, Frequent Storm, ULCHI Focus Lens and Cobra Gold. Additionally, eight Special Forces medics deployed in support of efforts to identify remains from Southeast Asia. In the U.S. Southern Command, JCET operations involved 400 soldiers who trained in Belize, Bolivia, Colombia, Ecuador, El Salvador, Honduras, Panama and Suriname.

Approximately 650 Guard soldiers deployed to the Jungle Operations Training Center in Panama, while another 200 medical personnel deployed to U.S. Southern Command to provide medical/dental care and preventative medicine education for local populations.

About 4,600 Guard soldiers deployed overseas in fiscal year 1997 to conduct humanitarian and civic assistance projects and host-nation mission support. These personnel participated in the construction or rehabilitation of 21 schools, seven clinics, three community centers, four water wells, and 21.4 km of "farm-to-market" roads. The Army Guard also deployed 2,321 Military Police worldwide for force protection, installation security, and law enforcement missions. Other accomplishments include the deployment of 3,090 soldiers for the USAREUR Equipment Maintenance programs and the Combat Equipment Group-Europe (CEG-E) as well as deployments to all theaters for Joint Chiefs of Staff (JCS) directed exercises such as Nuevos Horizontes 1997 (Belize) and Nuevos Horizontes 1997 (Panama), Fuerzas Defenzas, Bright Star, Atlantic Resolve, Tradewinds, ULCHI Focus Lens, Keen Edge and Northwind. Additionally, the ARNG provided over 1,000 soldiers to the Theater and Equipment Maintenance Site (TEAMS) for organizational and direct support maintenance along with over 1,500 soldiers comprised of maintenance, logistics and medical personnel to augment USARSO in its support of the ARNG and JCS exercises and RETRO Panama operations.

RC to AC Program

The Department of the Army (DA) continued support to the Reserve Component to Active Component (RC to AC) program. The goal of this program is to relieve the personnel and OPTEMPO of active Army units through integrated use of RC soldiers. The Guard provided 6,853 soldiers who provided 119,138 mandays in relief of the Active Component troops.

Military Exchange Programs

Army Guard soldiers participated in three company-size reciprocal unit exchanges with the United Kingdom and Germany. The exchanges provide soldiers and units with valuable training while permitting each to become familiar with the other's military doctrine and tactics. The Minnesota Army National Guard established a formal unit exchange with the Norwegian National Guard. This company-size exchange focuses on winter warfare operations. Thirteen Guard officers were exchanged with officers from the United Kingdom and Germany for two weeks of annual training.

Finally, the Puerto Rico Army National Guard participated in the Latin American Co-op Exchange Program in the Caribbean basin. Each year, more than 500 soldiers from Puerto Rico deploy to the Dominican Republic, Jamaica, and Barbados.

State Partnership Program

The Army Guard participated in the European Command's Joint Contact Team Program (JCTP) under the auspices of the National Guard's State Partnership Program (SPP). Under the program, the Army National Guard serves as a model of a military force subject to civil authority for Central European and former Soviet Union countries.

The Guard is also providing instruction on military support to civil authorities in planning and responding to civil emergencies and natural disasters. Other areas of special interest for these countries are recruiting, retention, training of reserve forces, and mobilization to support active Army forces.

In fiscal year 1997, the Army Guard provided traveling contact teams, seminar participants, and state Adjutant General/Governor visits to Central European and former Soviet Union countries, as well as hosting numerous familiarization tours to the partner states in the continental United States. In fiscal year 1997, approximately 390 soldiers deployed to Belarus, Bulgaria, Czech Republic, Croatia, Estonia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Poland, Republic of Georgia, Romania, Slovakia, Slovenia, Turkmenistan, Ukraine and Uzbekistan.

For fiscal year 1998, the European Command's Joint Contact Team Program (JCTP) is being funded to support 10–12 Military Liaison Team positions and approximately 145 events in the European Theater.

Partnership for Peace

The National Guard Bureau also supports Partnership for Peace (PfP) events. In fiscal year 1997, the Guard hosted familiarization and observation tours for the Czech Republic, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Moldova, Republic of Georgia, Slovakia, Slovenia, and Ukraine.

Foreign Military Sales Support

The Vice Chief of Staff of the Army has directed the Guard to provide training in support of Foreign Military Sales (FMS) to the Republic of Singapore. The Texas Army National Guard provided CH–47D helicopter crewmember training and aircraft support to the Republic of Singapore Air Force.

Future Operations

In fiscal year 1998 the Army Guard plans to deploy nearly 22,000 soldiers to overseas theaters. These deployments will consist of JCS directed exercises, command sponsored exercises, Humanitarian and Civic Assistance projects, Medical and Engineer Readiness and Training exercises, Special Operations Forces exercises, and various types of mission augmentation support to overseas commands. Additionally, Guard soldiers will participate in individual and small unit exchanges with the Armed Forces of the United Kingdom, Germany, France, the Netherlands, Norway, Dominican Republic, Barbados, and Jamaica.

Operational Support Airlift Command (OSACOM)

The Guard's Operational Support Airlift Command (OSACOM) underwent significant changes in 1997. The Command was reorganized into two organizations: the Operational Support Airlift Agency (OSAA) and OSACOM.

The Operational Support Airlift Agency provides command and control over the Operational Support Airlift Command; manages the resourcing for CONUS and OCONUS based Operational Support Airlift airplanes; maintains an airlift data collection and analysis system for the purposes of airlift asset management; and provides accountability for all fixed wing OSA missions and ensures compliance with DOD, Army and ARNG directives, policies and regulations.

The Operational Support Airlift Command provides command and control the Operational Support Airlift Regional Flight Centers and the United States Army Priority Air Transport Detachment. It also provides priority air transportation for the senior leadership of the Army, secure transport of classified materials and responsive OSA support to all Army components.

In fiscal year 1997, OSAA/OSACOM executed 9,520 missions, transporting 77,685 passengers, airlifting 1,103,668 pounds of cargo and flying more than 50,600 hours. OSAA/OSACOM has also provided pilots and aircraft in support of a CENTCOM mission in Saudi Arabia and pilots to support Operation Joint Guard. In fiscal year 1998, OSAA/OSACOM is projected to fly over 64,000 hours. OSAA continues to provide quality assurance of all Army mission requests submitted to Joint Operational Scheduling Airlift Center (JOSAC) and oversight on performance of JOSAC missions by Army OSA providers to increase the efficiency of OSA support for all Army users. OSAA plans to inspect all ARNG Fixed Wing (FW) OSA assets in fiscal year 1998 and fiscal year 1999 through a Command Inspection Program (CIP). OSAA continues to improve automation capabilities through equipment and software upgrades that will allow rapid resource adjustments based on operational demands.

The Army National Guard at Home

In fiscal year 1997, men and women of the Army and Air National Guard in 54 states and territories served their communities during 308 emergency response missions, expending over 280,000 mandays. Of these 308 call-ups, 146 were natural disasters, 35 were civil emergencies, 39 were in support of law enforcement agencies, and 88 were other miscellaneous types of missions. The ability to call upon the Guard on an "as-needed" basis for State support missions demonstrates the value of a part-time, trained, and ready community based force. These domestic support missions reinforce the Guard's preeminent role as the military's first responder when emergencies strike.

The National Guard's most significant domestic activities during fiscal year 1997 involved operations supporting recovery from natural disasters. Army Guardsmen provided assistance during Hurricanes Fran (North Carolina), and Hortense (Puerto Rico and the Virgin Islands), and numerous emergency support functions in connection with flooding in the Midwest and the Ohio River valley. Internationally, the

Wyoming Guard deployed three C-130 aircraft (two equipped with the Modular Airborne Fire Fighting Systems (MAFFS) to Indonesia in October 1997 to assist in fighting fires affecting that nation's rain forest.

El Niño Consequence Management

Experts studying this weather trend predicted the worst El Niño in recent years. The Guard is consistently prepared to assist in recovery from natural disasters associated with these weather effects. As an integral part of these efforts, the ARNG assisted state and local agencies in managing consequences of the El Niño phenomenon.

A conference on El Niño took place in January 1998 at the National Interagency Counterdrug Institute (NICI) in San Luis Obispo, CA, with a primary purpose of promoting cooperation and mutual support between the states. Key issues discussed included the status of compacts between States/Territories, the development of El Niño threat awareness, assessment, and the study of potential impacts on certain geographic areas of the country.

The ARNG continues to monitor the status of engineer equipment, water purification units, and sandbag inventories within states likely to be affected by El Niño, and other flood-prone states and is continuing to plan for a variety of assistance and support.

Depot Maintenance

The Army National Guard depot maintenance program is based on a "repair and return to user" premise. This means Army National Guard equipment is repaired to deployable standards and returned to the owning units. The Army National Guard does not have an equipment maintenance float.

Backlogs and carryover from year to year increase the unserviceable equipment that must be supported. A depot maintenance backlog decreases the Army National Guard capability to meet assigned materiel readiness goals, decreases the quantities of serviceable equipment available to support Army National Guard training programs, and impairs the Army National Guard capability to rapidly mobilize and deploy high priority units. Depot level maintenance of aging Army National Guard equipment is the key to obtaining the highest possible level of Army National Guard equipment readiness.

The Army National Guard Depot Maintenance Program is funded at 35 percent of its total requirement for fiscal year 1999. Funding for this vital area is expected to increase slightly in the out years but depot maintenance requirements for the enhanced Separate Brigades continue to remain a key concern. For fiscal year 1999, funding levels for the enhanced Separate Brigades remain at 60 percent, while the funded levels for divisions is eight percent of depot maintenance requirements.

TRAINING AND EDUCATION

The Guard continued to place great emphasis on the training and education of ARNG personnel in 1997. Training and education initiatives included the Select, Train, Promote and Assign Policy and the Distance Learning Initiative. Additional support in this area was provided by the Visual Information Support Center in Nashville, TN. Finally, operations at ARNG Aviation Training Sites (AATS) and the Army's Combat Training Centers round out Guard Training and education efforts.

Select, Train, Promote, and Assign Policy

The Select, Train, Promote, and Assign (STPA) Policy is a personnel management system designed to increase readiness through more effective personnel management practices. This policy directs the expenditure of individual training funds to those enlisted soldiers on a promotion list for current or projected vacancies. The intent is to match individual and unit training requirements at the appropriate grade level and occupational specialty. This procedure maximizes the use of scarce training money and delivers trained soldiers to fill unit vacancies.

Distance Learning

In many ways, the Distance Learning Program represents the future of training and education in the Army National Guard. The Distance Learning Program upgrades armory space to high tech classrooms, all of which are linked by fiber optic cable to centralized teleconference facilities. The result is a fully interactive classroom where both military and non-military studies can be conducted.

The Distance Learning initiative continues to expand its scope in compliance with congressional intent and funding. Nine prototype classrooms with their supporting communications links are operational in Maryland, West Virginia, and Virginia. During fiscal year 1998, plans call for installation of over 150 additional distance

learning classrooms impacting all states and territories. The classroom network is primarily intended to increase the mobilization readiness of the National Guard force structure via advanced information technology classrooms and networks. Concurrently, the infrastructure will provide state-of-the-art technology assets to local communities through shared use arrangements. Close collaboration has been maintained with DOD agencies, state and local governments, and other civil and military organizations to ensure the implementation of appropriate technologies.

Critical to the success of the distance learning program is the establishment of a robust and dynamic telecommunication infrastructure which combines voice, video, and data traffic into one economical, highly efficient integrated network. The ARNG is currently provisioning a comprehensive communications network utilizing Asynchronous Transfer Mode (ATM) technology which will extend from NGB to all State Area Commands (STARC) and ultimately to every classroom connected to the architecture. This network will consolidate and upgrade numerous telecommunication functions currently operating in solitary, stovepipe environments. When fully operational, the system will provide significant opportunities for more efficient, effective, and economical communications links throughout the ARNG. As of first quarter fiscal year 1998, all States and Territories will be connected to the new digital network and classroom expansion is beginning.

Visual Information Support Center

The Visual Information Support Center (VISC) in Nashville, Tennessee, continued to serve as the Army Guard production center for a variety of Visual Information (VI) products including regional multimedia imaging, banners, posters and the duplication of videotapes and compact discs. During fiscal year 1997, the VISC developed visual information products for recruiting and retention and drug demand reduction for a variety of DOD and State organizations. In addition, the VISC produced several training and public service announcements and documented numerous Army Guard events for historical purposes. The VISC also provided audio-visual support to Marketing NCO Class 1997-2002 and the 1997 Public Affairs workshop. Finally, the VISC Rapid Response Documentation Team videotaped numerous ARNG units engaged in disaster relief support missions.

ARNG Aviation Training Sites (AATS)

The ARNG missions three Aviation Training Sites designated as national training assets for the Total Army. The Eastern ARNG Aviation Training Site (EAATS) is located at Fort Indiantown Gap, Pennsylvania and conducts Aviator Qualification Courses, Enlisted Training Courses, NCOES and Foreign Military Sales training for UH-1, UH-60 and CH-47D helicopters. The Western ARNG Aviation Training Site (WAATS) is located at Silver Bell Army Heliport, Marana, Arizona and conducts Aviator Qualification Courses, Enlisted Training Courses, NCOES, and Foreign Military Sales training for AH-1F, OH-58 helicopters and RAID aircraft. AH-1F training is only conducted at the WAATS for the Total Army and future plans are to conduct AH-64A helicopter training at this location in fiscal year 1999. The High Altitude Aviation Training Site (HATS) is located in Gypsum, Colorado and conducts high altitude power management courses in Utility and Observation aircraft for Active Component, Reserve Component and Foreign Military Sales. The Aviation and Safety Division, in coordination with Operational Support Airlift Command (OSACOM) also operates the Fixed-Wing Aviation Training Site (FWATS) in Clarksburg, West Virginia. The FWATS conducts Aircraft qualification courses in C-12, C-26, and C-23 fixed wing aircraft for the Total Army. Both the EAATS and WAATS are regional simulation sites, offering simulation support to the Total Army in AH-1F, UH-1H, UH-60, and AH-64 helicopters. Future plans will move a CH-47D simulator to EAATS and an additional AH-64 Combat Mission Simulator (CMS) to WAATS in fiscal year 1998.

Combat Training Centers (CTC)

The ARNG participates in all of the Army's CTC's; The National Training Center (NTC), Fort Irwin, CA, the Joint Readiness Training Center (JRTC), Fort Polk, LA, the Combat Maneuver Training Center (CMT), Hohenfels, GE, and the Battle Command Training Program (BCTP), Fort Leavenworth, KS. The Brigade Command Battle Staff Training Program (BCBST) is a subset of BCTP. The Army CTC program is divided into live simulation (NTC, JRTC, and CMT) and constructive simulation (BCTP and BCBST). The ARNG CTC program schedules units to attend the CTC's in the following capacities; rotational (BLUFOR) units, augmentation to other ARNG and AC rotational (including BLUFOR) units, augmentation to CTC Opposing Forces (OPFOR), and other types of support based on the needs of the CTC's.

National Training Center (NTC)

The National Training Center, located at Fort Irwin, CA is the Army's premier heavy maneuver Combat Training Center (CTC). As large as the state of Rhode Island, the fully instrumented NTC allows live Brigade level force-on-force exercises to be conducted numerous times each year. The ARNG receives one brigade rotation at the NTC each year. Rotations are allocated to the eight mechanized infantry/armored enhanced Separate Brigades (eSB's), making the rotation schedule once every eight years for each brigade. Based on associated Active Component unit input and using FORSCOM/ARNG Reg. 350-2, dated 1 March 95, (FORSCOM Commander's Assessment Matrix), the Adjutant General determines whether the unit has met the training requirements and will attend its scheduled rotation. The 116th enhanced Separate Armored Brigade (ID) will attend in fiscal year 1998, and the 155th enhanced Separate Armored Brigade (MS) is scheduled to attend in fiscal year 1999.

The ARNG receives and allocates five Leader Training Program (LTP) rotations annually. The LTP's are six days in length, and enhance staff coordination and combat decision making skills. Three LTP's are allocated to heavy brigades that attend NTC. Two LTP's go to light brigades that will attend JRTC. LTP's include a Tactical Exercise Without Troops (TEWT) and a JANUS battle staff trainer simulated exercise tied to the CTC terrain and fought against the CTC OPFOR.

Joint Readiness Training Center (JRTC)

The Joint Readiness Training Center (JRTC) is the light infantry equivalent of the Army's NTC. Located at Fort Polk, LA, JRTC hosts light infantry and special operations forces from all components for rotations stretching throughout the year. The ARNG receives one brigade rotation each year. The rotations are allocated to the seven light infantry enhanced Separate Brigades (eSB's). As with the other eSB's, the Adjutant General determines if the unit will attend. The 41st eSB (OR) is scheduled to attend in fiscal year 1998 and the 29th eSB (HI) is scheduled to attend in fiscal year 1999.

The ARNG receives and allocates two LTP rotations annually. These rotations are allocated to the eSB's based on units' relative calendar proximity to scheduled JRTC rotations.

As with the NTC, training opportunities exist for Combat Arms, Combat Support and Combat Service Support units to augment BLUFOR and OPFOR units and to provide installation support.

Combat Maneuver Training Center (CMTC)

The Combat Maneuver Training Center (CMTC), Hohenfels, Germany, combines aspects of the NTC and JRTC for U.S. Forces assigned to U.S. Army Europe. Attendance at the CMTC involves Overseas Deployment Training (ODT). The scheduling of units and training opportunities is managed by NGB. Elements of the 3d Battalion, 126th Infantry (Air Assault), Michigan Army National Guard, augmented the 1st Battalion 508th Airborne Battalion Combat Team's AC BLUFOR rotation in August and September 1997. Opportunities exist for Combat Arms, Combat Support and Combat Service units to augment the OPFOR and to provide installation support. ARNG support for the CMTC is considered vital to the Center's continued viability as a CTC.

Training Opportunities

In addition to dedicated Guard rotations at NTC and JRTC, numerous opportunities exist for Guard units to augment Active Component maneuver forces at the CTC's. Units required by the CTC's for the augmentation of Active Component rotations include Field Artillery MET sections and Tactical Operations Centers (TOC), Main Support Battalions, ADA Batteries, MP Platoons, chemical companies, and MI companies. In addition, each NTC and JRTC rotation requires engineer and infantry elements to serve as Opposing Forces (OPFOR), and various CSS assets to provide general rotation support.

LEVERAGING TRAINING TECHNOLOGY

The Army National Guard made extensive use of simulation in training again this year. As in the past, these simulations have provided a stressful training environment for commanders, staffs, units, and individual soldiers to practice skills necessary for fighting and winning on today's battlefield. Simulations provide equivalent difficulty and greatly enhanced repetitive training at a fraction of the cost of "full-up" live training experiences. The Army National Guard plans to aggressively pursue the leveraging of simulation technologies in Guard training in the future.

Simulation in Training for Advanced Readiness (Project SIMITAR)

The joint Defense Advanced Research Projects Agency (DARPA)/ARNG project SIMITAR (Simulation in Training for Advanced Readiness) continued its development of training simulation technologies, methodologies and strategies for use by ARNG heavy maneuver Brigades. The interjection of these initiatives into the 48th Bde. (Georgia ARNG), and the 116th Cavalry Bde. (Oregon, Montana, and Idaho National Guard) continued in fiscal year 1997 with an NTC rotation by the 48th Bde. Concurrently, the 116th Bde. completed a SIMITAR assisted Annual Training (AT) at Gowen Field Idaho in which the Bde. successfully qualified on Tank Table VIII by day two of the AT period. 116th followed up this success by conducting Table XII by day six. Both of these milestones were achieved through use of a variety of training simulations that allowed execution of most preliminary gunnery and maneuver activities prior to the Annual Training (AT) period.

Simulation in training initiatives developed or modified by project SIMITAR include the A-FIST, the ARPA Reconfigurable Simulator Initiative (ARSI), the Digital Systems Test and Training Simulator (DSTATS), and an updated version of the JANUS battle-staff trainer developed in cooperation with DARPA. Fiscal year 1997 also witnessed the introduction of several completely new initiatives, including D-FIRST and Bradley FIST. D-FIRST is a live force-on-force company-team level system that replaces MILES by using highly accurate Global Positioning System (GPS) devices to track engagements. Bradley-FIST, an initiative that combines the Bradley Conduct of Fire Trainer (COFT) with the Engagement Skills Trainer (EST), allows Bradley Crewmembers to interact with dismounted elements simultaneously in simulation for the first time.

STEP (SIMITAR Training Exportable Package)

Following the success of the SIMITAR program, ARNG leaders explored ways to apply the most successful aspects of this experimental effort to the Guard as a whole. The result of this study is the SIMITAR Training Exportable Package (STEP). Like SIMITAR, STEP is a training package designed to prepare brigades for a Combat Training Center (CTC) rotation. The package contains a training strategy, methodologies and technologies that when applied give ARNG brigades the skill set required to perform Brigade Combat Team (BCT) operations at a CTC.

STEP is a unit sustainment training program that is home station based and employs simulations to the greatest extent possible to conduct structured training. The strategies, methodologies and technologies developed for SIMITAR are refined, packaged and presented to ARNG separate brigades during years 6, 7, and 8 of their 8 year training cycle.

STEP provides training in three key areas:

Battlestaff Training.—This component uses the JANUS constructive exercise system to train battalion and brigade battle staffs in a rigorous and structured way. JANUS exercises are executed at home station.

Unit Collective Training.—This component employs both virtual maneuver and virtual gunnery devices to conduct training at home station. The Compressed Gunnery Strategy is the center piece of the collective piece which allows a unit to conduct both gunnery and maneuver in the same year.

Combat Service Support (CSS) and individual training.—STEP uses computer based training systems to the maximum extent possible. A CSS training strategy that focuses on CTC support to maneuver battalions in all three combat missions is emphasized.

STEP is the system required to prepare a BCT to meet the rigors of a CTC rotation. By implementing a sequential and progressive training strategy that is device based coupled with demanding live training, an ARNG separate brigade can have a successful CTC rotation.

Aviation Reconfigurable Manned Simulator

The Army National Guard is developing an Aviation Reconfigurable Manned Simulator (ARMS) as a cost-effective solution to enhance flying safety and readiness. This system is being developed with the mutual cooperation and support of the U.S. Army Aviation Center (USAAVNC) and the Army's Simulation, Training and Instrumentation Command (STRICOM). It can be quickly reconfigured to each of the rotary and fixed wing airframes flown in the Army Guard. The device is a collective training simulator which provides for a 360 degree virtual environment, a helmet mounted display system, accurate cockpit housing, realistic controls and essential panels, and tactile-interactive cockpit panels. Each ARMS provides training in individual and crew tasks, and focuses on collective, combined arms, and joint service operations. Reconfigurable simulators such as ARMS complement existing older

technology simulators as well as future training technologies. ARNG Aviation's requirement is for six company-size sets of 6 cockpits each for a total of 36 cockpits, each set transportable to any ARNG unit as needed.

Training, Readiness and Operations Unit Planning, Execution and Resourcing System

The Training, Readiness and Operations Unit Planning, Execution and Resourcing System (TROUPERS), will provide ARNG leaders with the tools to maximize training benefits and support the full execution of training funds. TROUPERS is a reports generator that draws information from existing Standard Army Management Information System (STAMIS) databases and provides the state and national leadership tools to plan, allocate resources and monitor the execution of annual training, schools, special training and Inactive Duty Training. The system allows senior leaders access to budget information relating to reservation, obligation, execution and forecasted year-end execution for Annual Training, Individual Duty Training, Schools and Special Training.

SAFETY PROGRAM

The Army National Guard safety program is based upon individual responsibility and leader commitment to safe operations in all environments. Guard supervisors and soldiers at all levels must work to ensure that all possible precautions are observed during deployments, training, or on domestic support operations. Central tenants of the Guard safety program include risk management, leadership, discipline, and strict adherence to Total Army safety standards.

Aviation Safety

The ARNG takes an aggressive approach to safety, and this has resulted in the lowest aviation accident rate in the history of the Army National Guard. The Army National Guard leads the rest of DOD in aviation safety and has developed a safety program that other military organizations emulate.

Despite dwindling resources, the ARNG safely executed an aggressive flying hour program in fiscal year 1997 with a Class A-C accident rate of only 2.76 accidents per 100,000 flying hours. Unfortunately, the year was marked by an increase in the engine failure rate in the UH-1 Huey helicopter that resulted in two serious accidents. The reliability of this engine is being reviewed and flight restrictions have been placed on affected aircraft pending further engineering studies.

The greatest challenge to Army National Guard aviation safety is the continued reduction in aviation training funds. Units have reported a decrease in pilot proficiency in high demand aviation tasks such as night vision goggle operations and multi-ship low level flight. Given current trends in aviator proficiency and increased operational demands, an eventual increase in the aviation accident rate is anticipated.

Ground Safety

Army National Guard efforts in ground safety were highly successful in fiscal year 1997. The Army National Guard experienced a five percent decrease in ground accidents during the course of the year. Of the accidents that occurred in fiscal year 1997, sixty-five percent resulted in personal injury, nineteen percent involved Army Motor Vehicles and eleven percent involved privately owned vehicles. However, vehicular accidents account for a disproportionately high number of fatal injuries. In an effort to combat vehicular accidents the Army National Guard launched an aggressive campaign that included unit level training and a national awareness campaign.

Occupational Safety and Health Administration (OSHA)

The Army National Guard experienced an eight percent decline in workers compensation claims in fiscal year 1997. The Army National Guard will continue to emphasize employee training and OSHA compliance to decrease accidents. In addition, the Army National Guard will come into full compliance with DOD mandated ergonomics programs.

Ergonomic related injuries are the leading cause of ARNG workman's compensation claims. The Army National Guard has developed a new partnership with the Department of Labor that includes early intervention and return to work of injured employees.

ARNG Risk Management

The Army National Guard's primary focus for fiscal year 1998 is to comply with the Army's mandate to integrate risk management into all processes and operations.

The Guard will use risk management as its primary accident prevention and loss avoidance tool.

The goals of the ARNG risk management integration program include educating all Guard soldiers and civilians on the five steps of Army risk management and incorporating risk management into mission planning, policy and processes.

ENVIRONMENTAL PROGRAM

The Army National Guard Environmental Program emphasizes responsible stewardship of the land and facilities managed by the ARNG and ensures compliance with environmental laws and regulations. This is accomplished by promoting the Army's environmental goals through the ARNG environmental compliance, conservation and restoration efforts in all 54 states and territories.

Compliance

Increased funding will help accelerate the ARNG's transition to a more proactive compliance posture. Prior to fiscal year 1998 the ARNG did not receive sufficient funding to meet all of its environmental requirements. As a result, spending was confined to critical environmental projects.

For fiscal year 1999, funding for ARNG environmental programs is sufficient to allow for the completion of many deferred projects, thereby permitting a renewed emphasis on pollution prevention and environmental stewardship. For example, expanded solvent substitution programs will simultaneously reduce hazardous waste generation, disposal costs, and exposure risks to soldiers and civilians. Moreover, improvements to Spill Prevention Control and Countermeasure Plans, secondary containment systems for fuel tankers, and wastewater treatment systems will soon occur.

The ARNG will consequently possess the resources necessary to support and enhance training and to provide power projection platforms from its more than 3,200 highly dispersed CONUS facilities.

Maintaining a high degree of environmental compliance will require timely and accurate corporate information management. To this end, the Windows Compliance Assessment and Sustainment Software (WINCASS) will fully integrate the ARNG's Environmental Compliance and Assessment System (ECAS) into a developing, comprehensive environmental reporting network. ECAS will be the first automated tool to implement alternating internal and external assessments and will permit continuous evaluation of regulatory compliance conditions and management systems.

Conservation

The National Environmental Policy Act (NEPA) requires that the ARNG consider the significant environmental effects of its major actions or decisions. Pursuant to the NEPA, programmatic environmental assessments will realize cost savings to the ARNG for fiscal year 1999. Moreover, all installations will continue working to ensure Integrated Natural Resource Management Plans and Cultural Resource Management Plans are in place by fiscal year 2000. The Forestry Reinvention initiative will streamline timber sales, ensuring greater return of funds to the installations and local communities. The Integrated Training Area Management (ITAM) implementation strategy to analyze and manage environmental impacts on training facilities and maneuver areas. This is being aggressively implemented at 54 separate locations with the goal of having all primary training sites under the same system by fiscal year 1999.

Restoration

The ARNG's most significant environmental challenge continues to be the clean-up of past-practice contamination. In fiscal year 1999 NGB and Massachusetts ARNG will be in the final stages of actions associated with ground water investigation and pollution prevention activities at the Massachusetts Military Reservation (MMR). However, additional challenges to resolution of existing EPA administrative orders at MMR could require budgeting and expenditure beyond fiscal year 1999 dollars. This budget must also meet the costs of the continuing evaluation of other sites and the cleaning of those where contamination is identified. Moreover, restoration of facilities recently acquired by the ARNG such as Fort McClellan, Fort Indiantown Gap and others that are contaminated from past DOD practices will also require funding.

The Army National Guard is conducting Preliminary Assessments and Site Inspections (PA/SI) with program management funds from the Environmental Restoration Army (ER, A) account. Unfortunately, dramatically increasing numbers of requirements will likely overwhelm funding. Because of this, the ARNG will require

Operations and Maintenance (OM) funding to conduct required PA/SI activities projected for fiscal year 1999 and later years.

IN TOUCH WITH OUR PAST . . . FOCUSED ON OUR FUTURE

A look back at fiscal year 1997 shows an Army National Guard that successfully met its obligations to its people and to the Nation as a whole. As the information in the preceding pages attests, the Guard did more in 1997 with proportionally fewer resources than at any other time in its long history. Despite these successes, current trends suggest that the Guard faces even greater challenges in the years ahead. Aided by Army National Guard Vision 2010, and the leadership of Guardsmen throughout the country, the Guard will successfully meet every challenge as it enters the 21st century.

APPENDIX A: NCO'S AND SOLDIERS OF THE YEAR

The Army National Guard consists of far more than equipment or funding. The people that make up the Guard represent its greatest resources. Accomplishing Guard missions would be impossible without the dedicated work by Guard members throughout the nation. This page is dedicated to those Guard soldiers who distinguished themselves during fiscal year 1997. We salute them, and Guard members like them everywhere.

SGT Richard S. Boggan, Co. A, 1st Bn, 20th Special Forces Group, Auburn, Alabama, First Army NCO of the Year.

SSG Pamela B. Paff, HHC, 1st Bn, 207th Aviation, Anchorage, Alaska, Pacific Region NCO of the Year.

SSG Todd D. Smith, 3650th Maintenance Co (-), Golden, Colorado, Fifth Army NCO of the Year.

SPC Daniel K. Lankford, 1993d Personnel Detachment, Enterprise, Alabama, First Army Soldier of the Year.

SPC James L. Redcorn, Jr., E Troop, 145th Cavalry, McAlester, Oklahoma, Fifth Army Soldier of the Year.

SPC Le Kim Lee, Co. C (Medical), 29th Support Battalion, Honolulu, Hawaii, Pacific Region Soldier of the Year.

APPENDIX B: CONSTITUTIONAL "CHARTER" OF THE GUARD

OUR CHARTER IS THE CONSTITUTION OF THE UNITED STATES OF AMERICA.

Militia Clauses. Article I, Section 8 of the U.S. Constitution contains a series of "militia clauses," vesting distinct authority in the Federal government and the State governments.

Clause 14 provides that the Congress has three constitutional grounds for calling up the militia: "to execute the laws of the Union, suppress insurrections, and repel invasions." All three standards appear to be applicable only to the Territory of the United States.

Clause 15 gives Congress the power "to provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States." That same clause specifically reserves to the States the authority to establish a State-based militia, to appoint the officers, and to train the militia according to the discipline prescribed by the Congress. As written, the clause seeks to limit Federal power over State militias during peacetime.

Armies Clause. The "armies clause" in Article I, Section 8 conferred on the Congress the power to provide for the common defense of the United States, declare war, raise and support armies, and make rules for the "government and regulation of the land and naval forces." The Congress also was granted authority to make all laws "necessary and proper" for carrying out such powers. Under this provision, congressional power over the National Guard appears to be far-reaching.

Other Relevant Provisions. Other sections add to the constitutional underpinnings of our national defense structure. Article I, Section 10 provides that no State, without the consent of the Congress, shall keep troops or ships of war in time of peace, or engage in war unless actually invaded. This section was qualified, however, by the Second Amendment to the Constitution, which was intended to prevent the Federal government from disarming the militia. Part of the Bill of Rights that the Anti-Federalists insisted on, states: "A well-regulated militia, being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed."

In addition, Article IV, Section 4 provides that the Federal government "shall guarantee to every State in this Union a republican form of government," and shall protect each of the States against invasion. At State request, the Federal government was to protect the States "against domestic violence." Through these provisions, the potential for both cooperative Federalism and for tension between the "militia" and "army" clauses was built into the Constitution.

Article II, Section 2 places all forces, including the militia when in Federal service, under the control of the executive branch by making the president commander-in-chief. Article I, Section 8 gave the ultimate control to the Congress, however, by granting it the sole power to collect taxes to pay for the military, to declare war, and to employ the militia for common purposes of internal security. Existing State militias could be maintained, although troops could be called into national service. But the founding fathers moderated that authority by leaving the individual States with the explicit responsibility for appointing officers and for supervising peacetime training of the citizen-soldiers.

Militia Act of 1792. Federal policy subsequently expanded and clarified the role of the militia. The Militia Act of 1792 required all able bodied men aged 18-45 to serve, to be armed, to be equipped at their own expense, and to participate in annual musters. The 1792 act established an idea of organizing these militia forces into standard divisions, brigades, regiments, battalions, and companies, as directed by the State legislatures.

For the 111 years that it remained in effect, this act defined the position of the militia in relation to the Federal government. The War of 1812 tested this unique American defense establishment. To fight that war, the new republic formed a small regular military, and trained it to protect the frontiers and coastlines. Although it performed poorly in the offensive against Canada, this small force of regulars, when backed by a well-armed militia, accomplished its defensive mission in the War of 1812. Generals like Andrew Jackson proved, just as they had in the Revolution, that regulars and militia could be effective when employed as a team.

With the coming of the Civil War, State militias played a pivotal role. Because the Regular Army was so small throughout the nineteenth century and the Army Reserve did not exist, the majority of Army units which carry Civil War battle honors are from the Army National Guard.

Posse Comitatus. In 1867, the Congress suspended the southern States' right to organize their militias until a State was firmly under the control of an acceptable government. The U.S. Army was used to enforce martial law in the South during Reconstruction. Expansion of the military's role in domestic life, however, did not occur without debate or response. Reaction to the use of the Army in suppressing labor unrest in the North and guarding polls in the South during the 1876 election led to congressional enactment of the Posse Comitatus Act in 1878. Designed to limit the president's use of military forces in peacetime, this statute provided that:

it shall not be lawful to employ any part of the Army of the United States * * * for the purpose of executing the laws, except on such cases and under such circumstances as such employment of said force may be expressly authorized by the Constitution or by any act of Congress * * *

Concern over this new domestic role also led the States to reexamine their need for a well-equipped and trained militia, and between 1881 and 1892, every State revised the military code to provide for an organized force. Most called their State militias the National Guard following New York's example.

The Dick Act. Beginning in 1903 through the 1920's, legislation was enacted that strengthened the National Guard as a component of the national defense force. The Dick Act of 1903 replaced the 1792 Militia Act and affirmed the National Guard as the Army's primary organized reserve.

The National Defense Act of 1916 further expanded the Guard's role and guaranteed the State militias' status as the Army's primary reserve force. Furthermore, the law mandated use of the term "National Guard" for that force. Moreover, the President was given authority, in case of war or national emergency, to mobilize the National Guard for the duration of the emergency. The number of yearly drills increased from 24 to 48, and annual training from five to 15 days. Drill pay was authorized for the first time.

The National Defense Act Amendments of 1920 established that the chief of the Militia Bureau (later National Guard Bureau) would be a National Guard officer, that National Guard officers would be assigned to the general staff, and that the divisions, as used by the Guard in World War I, would be reorganized. Subsequent amendments to the act, the National Guard Mobilization Act of 1933, created the National Guard of the United States as a component of the Army at all times, which

could be ordered into active Federal service by the President whenever Congress declared a national emergency.

Following the experience of fighting an unpopular war in Vietnam, the 1973 Total Force Policy was designed to involve a large portion of the American public by mobilizing the National Guard from its thousands of locations throughout the United States when needed. The Total Force Policy requires that all active and reserve military organizations of the United States be treated as a single integrated force. A related benefit of this approach is to permit elected officials to have a better sense of public support or opposition to any major military operation. This policy echoes the original intentions of the founding fathers for a small standing army complemented by citizen soldiers.

STATEMENT OF MAJ. GEN. PAUL A. WEAVER, JR.

Senator STEVENS. Let me welcome you, General Weaver, on your first appearance before the committee. We are delighted to have you here before us and look forward to the opportunity to work with you, and we will be happy to have your statement.

General WEAVER. Mr. Chairman and members of this great committee and staff, I am glad to be here not only on behalf of the 109,000 men and women of the Air National Guard, but also as a part of the total Air Force team, one team speaking with one voice and with one vision of the future.

I have entered a statement for the record.

Today, more than ever, the Air Force relies on its total force, Active, Guard, and Reserve working together to meet today's peace-keeping and wartime commitments. The Air National Guard continues to play a national role in every major deployment and contingency tasking, with an average 1997 participation of 5,000 volunteer Guard men and women deployed each month.

Most importantly, I know this committee fully understands that this is with the full support of their families, their communities, and their employers, and it is this full spectrum link of families, communities, and employers that allows continued use of our military forces in support of our national security strategy while satisfying the values criteria of the American public.

But it is also worth noting that this Air National Guard participation is not just around the edges. It is in the thick of things wherever and whenever the Air Force is involved.

Please let me point out that the first bombs dropped in Bosnia were dropped from a Maryland Air National Guard A-10 unit that was deployed to the theater. The second bombs dropped were by Massachusetts A-10 unit, also deployed to the theater.

These are people that only days earlier were having breakfast with their families and going to their civilian jobs, but were now proudly serving this great Nation through the use of air power, which reduced the overall level of violence and stopped the genocide. That link with the civilian population is critical as our military strategy runs the gamut from small-scale contingencies to major theater wars.

Something else worth noting is that while the Air National Guard and Reserve participated in only 11 contingencies and humanitarian missions between 1953 and 1990, we were a part of more than 40 contingencies between 1991 and 1997. The frequency and tempo is rising, and that calls for your continued congressional support.

As our Nation continues to transition from the cold war era to meet the 21st century strategic challenges, we know the Air National Guard and the Air Force Reserve will be involved in even more mission areas that are total Air Force endeavors to provide the aerospace power resources which are so much of a part of our American advantage.

We are working diligently to develop new concepts which emphasize the revolution in both business and military affairs, coupled with new future total force unit ideas that will assure that we can continue to provide the aerospace advantages in an era of constrained resources.

But we can only do so much internally. The American warrior of the future, whether on land, sea, or air, must always be able to rely on the aerospace advantage when he or she goes into harm's way. The obligation to assure that aerospace advantage is always available is a solemn trust both the Air Force and the Congress share together.

PREPARED STATEMENT

We in the Air National Guard are proud of our expanding role in the national defense, and look forward to the next phase of transformation and our continued partnership with the total Air Force and with this great Nation.

Sir, I look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF MAJ. GEN. PAUL A. WEAVER, JR.

Mr. Chairman and members of the Committee: Thank you for the opportunity to appear before this committee, not only on behalf of the 109,000 men and women of the Air National Guard, but also as part of the Total Air Force team.

It is an honor for me to represent this world class organization, which has a proud heritage and an essential role in this nation's defense. With the inception of the National Guard 361 years ago in the Massachusetts Bay Colony, the ideal of the American soldier emerged—a civilian who would take up arms when the nation was endangered, and then return to civilian pursuits when the crisis had passed. This concept has remained unchanged throughout our nation's history and guardsmen and women have proudly served in every American conflict. Today we are deployed around the world in support of peacekeeping missions, contingencies and exercises. We also are hard at work in our communities, whenever and wherever we are needed.

AIR NATIONAL GUARD ROLE IN NATIONAL SECURITY

Mr. Chairman, please allow me to share with you an array of relevant Air National Guard issues. These issues are relevant for Congressional consideration in reviewing our role as an integral part of the national defense strategy. I am proud to provide you our current Air National Guard posture.

The Quadrennial Defense Review

One very important aspect of the Quadrennial Defense Review (QDR) was the reaffirmation of the importance of the Total Force Policy. The Air Force fully embraces this concept and we proudly provide a significant portion of the wherewithal for our service to effectively accomplish its entire range of military options. The Air National Guard budget for fiscal year 1999 reflects this support as we convert four F-16 air defense units to F-16 general purpose fighter units. In addition, this budget converts one F-16 squadron to C-130's, and one F-16 training unit to F-15's to better serve the needs of the entire nation.

The Air National Guard Long Range Plan

With our telescope on tomorrow, the Air National Guard has developed a Long-Range Air National Guard Plan that provides a framework within which to imple-

ment our strategic vision. It contains expectations of our commitment to maintain a ready force capable of projecting American military power and providing community support. It further outlines our plans to modernize those capabilities to protect our Nation's security and community interests well into the next century.

Air National Guard Stability

Fiscal year 1999 is a year of relative stability within the Air National Guard. While we have five unit conversions as a result of the QDR, our manpower, aircraft, flying hours, and facilities are generally consistent with fiscal year 1998. We expect this stability to continue. For the Guard, this means that after an extended period of turmoil surrounding unit deactivations, personnel drawdowns and other necessary changes, our people see light at the end of this tumultuous tunnel. We see the Air National Guard of the future. It is lean, well equipped, highly motivated, and extremely well trained to accomplish any mission.

CONTEMPORARY AIR NATIONAL GUARD OPERATIONS

As our Nation continues the transition to meet 21st century strategic challenges, the Air National Guard will be involved in even more mission areas as our Total Air Force continues to provide the aerospace resources which are so much a part of our American advantage.

Readiness

We are ready to deliver appropriate and sufficient forces whenever and wherever called, whether for an international crisis, peacekeeping mission, or a hometown emergency. Personnel and training, well-maintained aircraft and equipment, and financial resources are critical to our success. A shortfall in any of these negatively impacts our readiness levels. Unique to the reserve components, however, our readiness is also a function of family and employer support for our largely part-time force. It is a testament to the Air Force's commitment to Total Force Policy that the percentage of Air National Guard units maintaining the highest two readiness levels is virtually identical to the active component.

Since 1986, the active Air Force has downsized by nearly 40 percent, while military operations other than war have greatly increased. This has necessitated a greater reliance on the reserve components, the Guard and Reserve, to relieve the stress of high OPSTEMPO/PERSTEMPO. While the Air National Guard and Air Force Reserve participated in only 11 contingencies and humanitarian missions between 1953-1990, we were a part of more than 40 between 1991-1997. The frequency and tempo are rising and we need your continued support.

The Total Air Force

In 1997, the Air National Guard participated in every major deployment and contingency tasking, with an average of 5,000 volunteer guard men and woman deployed each month. It's important to note that this Air National Guard participation was not "just around the edges." We were in the thick of things side by side with the Air Force. For example, the first bombs dropped in Bosnia were dropped by a Maryland Air National Guard A-10 unit deployed to the theater. Equally noteworthy, the second bombs dropped were by a Massachusetts Air National Guard unit. These are people who only weeks earlier were performing their civilian jobs, but were now proudly serving the Nation through the application of air power.

Our successful integration into the total force is derived from three key factors: the recognition of our capabilities by Air Force commanders, a commitment to participate as a full partner in the Air Force budgeting process, and staff integration.

The National Defense Panel observed that the Guard would play an increasing role in a variety of worldwide operations. Today, more than ever, the Air Force relies on the Total Force, Active Duty, Air National Guard and Air Force Reserve working together to meet all commitments. Combatant commanders long ago ceased to ask whether Air Force units deployed to their theaters were active duty, Guard or Reserve. Warfighting commanders rightfully expect any unit from our Total Force to provide needed capabilities.

The Air National Guard is also a full partner in the Air Force corporate budget process. We are involved in every stage of the planning, programming and budgeting cycle, and have membership with the active duty Air Force and Air Force Reserve on each programming panel, the Air Force Group, Air Force Board and Air Force Council. The Air Force continues to fund our OPSTEMPO/PERSTEMPO, training, infrastructure and personnel at levels comparable to the active duty force. Likewise, they provide the source of our modernization, which is based on the needs and requirements of our gaining Major Commands (MAJCOM's). We greatly appreciate the support Congress has shown to the Air National Guard in the past, ena-

bling us to enhance our capabilities beyond what would have been possible under existing budget constraints.

Our current staff integration initiative will strengthen an already superb working relationship with the active Air Force. By the end of fiscal year 1999 we will assign additional Air Guard personnel to unified and operating commands. We already have Guard members in place at Air Combat Command, Air Mobility Command, most other MAJCOM's and in several directorates on the Air Staff. The results have been tremendous. The Air Force is also committed to place active duty personnel at the National Guard Bureau and field units. We now have people where the decisions on force structure, equipment, and force employment are made and they ensure Guard capabilities are recognized and used. Likewise, active duty members serving with the Guard become proponents of the Total Force approach.

AIR NATIONAL GUARD OPERATIONS

The Air National Guard's budget of \$4.5 billion represents real added value for this country. While it totals just 7.1 percent of the Air Force budget and 1.6 percent of DOD's, as the chart below shows, it provides a significant portion of the Air Force's military capability of the total force.

	<i>Percent</i>
Air Sovereignty	100
Fighters	34
Theater Airlift	46
Tankers	45
Bombers	12
Combat Rescue	30
Strategic Airlift	16

In support of this capability, Air National Guard aircrews serve an average of 110 days per year. As I mentioned earlier, an average of 5,000 Guard members were deployed each month during fiscal year 1997 to support exercises, contingencies, and military operations around the world. Air National Guard members deploy on a rotational basis, helping to reduce active duty PERSTEMPO while accommodating their civilian employment. We have been very successful in meeting our deployment commitments with volunteerism by rotating members. An example is our fighter community. The first group to deploy takes aircraft, then members, perhaps from other units, replace the aircrews and maintenance personnel while aircraft remain throughout the deployment. This process of replacing crews continues for the duration of the deployment, permitting full support to the Air Force mission, while keeping the individual TDY rate to an acceptable level.

In many cases, the Guard and Reserve work together to provide extended support to the active force. An example of a joint Guard and Reserve mission was the 24 July to 25 October 1997 deployment to perform sustainment airlift from Ramstein Air Base, Germany, to the forces in the Balkans. Other major operations in 1997 included: the deployment of security forces to Saudi Arabia; the deployment of civil engineers, firefighters, and air traffic controllers to Taszar, Hungary, as part of Operation Joint Guard; the use of KC-135's to refuel fighter aircraft enforcing the no-fly zone over Bosnia; and the use of F-15's and F-16's to enforce the no-fly zone over Northern Iraq, as well as the use of rescue crews to provide combat rescue support for those forces.

In 1997, the Air National Guard flew over 3,200 readiness support airlift missions, 700 airborne transport missions, 500 fighter deployment air refueling missions, and performed a variety of other challenging operations. For example, in October 1997, three 153rd Airlift Wing C-130 aircraft, crews, and support personnel from the Wyoming Air National Guard deployed to Jakarta, Indonesia, to help fight devastating forest fires. The crews flew hundreds of hours during their 60-day deployment using their specially equipped C-130's to help suppress fires over 3.5 million acres. During their deployment, the 153rd extinguished more than 70 fires in open forest areas in the face of incredible challenges posed by heavy smoke and extremely dry conditions. This support allowed the Government of Indonesia sufficient time to develop an effective fire fighting plan of its own and organize follow-on indigenous and commercial support to battle remaining fires.

As part of the overall restructuring of the Air Force, the Air National Guard has expanded its operational capability to include heavy bomber operations. The 184th Bomb Wing at McConnell AFB, KS was the first Air National Guard unit to become fully mission capable in the B-1 bomber and the 116th Bomb Wing at Robins AFB, GA also soon will achieve mission capable status. These two Air National Guard units represent approximately 30 percent of the total B-1 capability. The Air Na-

tional Guard has demonstrated its capability in all aspects of the B-1 mission, to include long-range Global Power missions to various overseas locations. We are now examining ways to include these units and assets into the Air Expeditionary Force.

Space Operations

Air National Guard involvement in the space operations mission began in January of 1996, when we activated the Air National Guard's first space operations unit, the 137th Space Warning Squadron, in Greeley, CO. Our participation in other space mission areas has also continued to progress. The 236th Combat Communications Squadron in Hammond, LA has continued its outstanding support of the Space Warfare Center and the Air Force Space Support Teams.

Our success within the space operations world has evolved quickly and continues to expand. As a result, the National Guard Bureau has extended its reach to Space Command by establishing a Space Transition Team at Buckley Air National Guard Base, CO. Its purpose is to act as an agent of the National Guard Bureau for mission transitions and identification of potential Air National Guard roles in space operations. The Guard's unique ability to recruit and retain quality personnel with specific capabilities and skills has not gone unnoticed. This capability is a hallmark for the future; where the Air National Guard will be a key supplier of skills and capabilities not normally found within the active duty Air Force.

Homeland Defense

Our homeland defense is a vital mission for the Air National Guard. A nation's right to exercise absolute control and authority over its national airspace above its territory, international waters, and territorial seas, better known as "Air Sovereignty," is an enduring mission. In January 1994, 1st Air Force was placed under the command of an Air National Guard General Officer, Major General Philip G. Killey; a first. This transition of the Air Defense command and control organization to the Air National Guard strengthens the Air Defense role. While the QDR reroles four air defense units in fiscal year 1999 to general-purpose fighters, our commitment to this mission remains solid.

In the future, the Air National Guard is destined to play an even greater role in our nation's defense against threats within our national borders, such as domestic terrorism, weapons of mass destruction and the counter-drug program. In many cases, the most effective counter to domestic threats is a community-based network of concerned citizens willing to become involved. This captures the very essence of the Air National Guard and as we acquire and integrate evolving technologies, we will exploit these technologies in support of the domestic mission. The Air National Guard is uniquely postured to pursue this course of action and we will truly make a difference.

AIR NATIONAL GUARD FAMILY

The concept of family within the Air National Guard is the essence of our ability to achieve our goals and objectives. Our family includes our Air Guard members, military and civilian, full-time and traditional, their families and dependents, and our employers within the communities in which we live and work. Without strong, deep-rooted commitment and support from all our families, our ability to execute the Air National Guard mission is adversely impacted.

Recruiting and Retaining Quality People

Despite the tremendous increase in deployments and OPSTEMPO, and in some cases because of it, the Air National Guard is having tremendous success in attracting and keeping high quality personnel. We finished fiscal year 1997 manned at 101.9 percent of our programmed strength, with a retention rate of 90 percent, the highest of any reserve component. We cannot, however, rest on our laurels. We must continue to offer attractive jobs, compensation and enlistment bonuses to ensure we preserve our capabilities.

Diversity

Our Air Guard family membership must reflect the communities it serves. With this in mind, no issue is of greater importance to the Air National Guard's future than diversity. We must take action now so that in the future our organization represents the diversity of the American people. We have made great strides and, as we execute the guidance in our long-range Air National Guard plan, we will ensure our family represents a mosaic of the nation and the communities, in which we live and serve.

The Enlisted Force

My vision for the next four years, as the new Director, is stability, along with focus on the Enlisted Force, Families and Employer Support. Our enlisted force is the force that sets us apart. We all know what they can do and have done over the years. They are a group of unsung heroes who deserve acknowledgment of their achievements. More importantly, they are an integral part of our future. These are the men and women who ensure our equipment is maintained in classic Air National Guard condition. These are the men and women who will pick up the mantle and learn tomorrow's missions, like the space mission. These are the men and women who will develop new techniques and methods of efficiency to save the Air Force and our Nation's resources. These are the men and women who will enhance our communication link to communities across our Nation and ensure that we have a vital link to a new generation of personnel to follow in their footsteps. They will help us begin to solve our diversity challenge, because they will represent a cross section of our communities. Most importantly, they will help us create new standards. Lastly, these are the men and women who will remain the backbone of our organization.

Families

Consistent with our commitment to national mobility requirements is the necessity for family support programs that will provide nurturing and stability for our Air Guard families. Our national, state, and unit plans provide reassurance to our members that, in time of need, the Air National Guard family will support its own. We have a network of family support volunteers in every Guard community across the country. They provide a source of support and comfort to those who remain behind.

Employer Support

It is our Guard employers across America, who enable our citizen soldiers and airmen to leave their jobs during the times they serve the Nation. It is our employers who keep those jobs secure until they return. It is the American employer who helps us provide training for our people that make them even better when they undertake their Guard jobs. It is our employers across America who are our link to our communities. And it is the employers of America, who provide us a broad recruiting base from which we can attract diversity. Employers will play an increasingly important role in making sure we succeed in the 21st Century.

Modernization

Whether responding to contingency operations world-wide, or helping communities recover from a natural disaster, the Air National Guard is using equipment that has been procured and modernized with funds primarily from Air Force procurement accounts, including \$300 million in fiscal year 1999, and the National Guard and Reserve Equipment Account (NGREA). We appreciate the Air Force and congressional support of our modernization efforts and have put these funds to good use. A near-term readiness enhancement is our modernization focus and we stretch every dollar to get the most "bang for our buck". We specialize in finding timely, low-cost, off-the-shelf solutions to our equipment needs—solutions that have the greatest return on investment for our warfighters.

When we talk modernization, we are committed to making sure our equipment is completely compatible with our active Air Force counterparts and based on a validated requirement. Keeping aircraft and equipment modernized is the lifeblood of the Guard. Without it, we will never remain "relevant" and that is why it has such a high priority.

Our modernization focus is the Combat Quadrangle—four initiatives that satisfy warfighting CINC requirements. These are:

- The ability to conduct 24 hour combat operations—which we are satisfying with our Night Vision Imaging System (NVIS).
- Survivability in high threat environments—which we satisfy with a host of electronic combat enhancements. These include the Countermeasure Management System (CMS), the Pylon Integrated Dispenser System (PIDS), and improved radar warning receivers. This also includes Airlift Defense System (ADS) as a prerequisite for participation of HC-130 aircraft's in many contingencies.
- Enhanced battlefield communications—which we fulfill with our Situational Awareness Data Link System on the F-16 and A-10, and the Fighter Data Link (FDL) on the F-15 aircraft.
- The ability to conduct precision attack—which we will satisfy with a full and open competition for a low cost; non-developmental self-designated laser system.

As a foundation to the Combat Quadrangle, training systems are required to hone combat skill support in all our programs. Air National Guard members are trained and motivated, but without the right equipment, we are hampered in our ability to respond.

In that vein, we intend to procure low-cost targeting pods which will provide precision weapons capability to our fighter fleet and improve F-16 combat capability. There are also many opportunities to take advantage of the electronic battlefield. The A-10 and F-16 Situation Awareness Data Link (SADL) provides pilots with an all-weather, low-cost data link using off-the-shelf Enhanced Position Location Reporting System radios. It is secure and jam resistant. It provides fighter-to-fighter, fighter-to-ground and ground-to-fighter data link information transfer. Its purpose is to save soldiers' and airmen's lives by preventing fratricide and enhancing situation awareness while providing increased combat ID capability. SADL capitalizes on the Army and Marine Corps digitized battlefield and have growth capability to ensure compatibility with future upgrades.

The Tactical Airborne Reece System (TARS), will equip the Virginia, Michigan, District of Columbia, Indiana, and Iowa Air National Guard with a capability for commanders to view the battle scene and make accurate warfighting decisions. The South Carolina Air National Guard, to be equipped with the HARM Targeting System, will suppress enemy air defenses with pinpoint accuracy. The Night Vision Imaging System (NVIS) will allow us to take the fight to the enemy around the clock and has just achieved Initial Operational Capability (IOC) at the 122FW, Fort Wayne, IN.

The Quadrennial Defense Review has presented us with challenges to modernize our F-16A model fleet, currently positioned at five bases. We are examining a variety of different options for these aircraft, including: a Structural Life Extension Program (SLEP), a Mid-Life Update (MLU), or the purchase of new aircraft.

Modernization of our mobility forces continues as well with major avionics upgrades to our 224 KC-135 aircraft. The PACER CRAG (Compass, Radar and Global Positioning System) installations began in January at the 163rd Air Refueling Wing, March ARB, CA. The installations are a total force program: three Air National Guard Contract Field Teams (CFT's), one Air Force Reserve Command CFT and the Programmed Depot Maintenance line at Tinker will complete installations of the entire fleet over the next three years.

The C-130J is a welcome addition to the Air National Guard airlift fleet. We are working closely with Air Mobility Command and Air Force Reserve Command to ensure adequate testing, support and training are in place as this new capability is fielded.

Counterdrug forces in eleven states will be improved over the next year as new high-reliability 3rd generation Forward Looking Infrared Radars (FLIR's) are fielded. We will continue to improve our Counterdrug aircraft in response to the needs of federal and state law enforcement agencies.

CONCLUSION

We are proud of our expanding role in the defense of our nation. We look forward to the next phase and our continued partnership with the Total Force. Together the Guard, the Reserve, and the Air Force will continue to provide America an unmatched capability to project military power anytime, anywhere in the world. This nation will always be a militia nation—defenders of freedom. The challenge for us will be to address the right mix of the right forces into the 21st century. The partnership of the reserve components and the Air Force will continue to grow stronger because of our Total Force Policy.

Thank you again for your support.

Senator STEVENS. Thank you very much, General Weaver. I note that behind you is Gen. Russ Drew Davis. General Davis, the committee wants to thank you personally for your assistance in arranging our trip to Antarctica. We were pleased to fly with the National Guardsmen going into and coming out of Antarctica, which demonstrates really what the Air Guard is all about.

I want to yield first to my colleagues, because they may have problems with schedules. Senator Cochran.

Senator COCHRAN. Thank you very much, Mr. Chairman. I do not have a problem.

Senator STEVENS. Sometimes people have to go to other committees.

OPERATIONAL TEMPO AND RETENTION

Senator COCHRAN. I understand. I am glad you are checking. The question that I raised in my opening statement is really one that concerns me, and that is whether or not you are seeing any difficulty developing, recruiting, and in promotion and retention of the quality and the numbers of men and women you require to maintain the operational tempo and fulfill the requirements and missions that are assigned to the National Guard. What is the status of that situation, General Baca?

General BACA. Mr. Chairman, just let me say that last year was one of the busiest years we have had in both Army and Air, and last year we met our recruiting objectives and we were the two top components in meeting our recruiting and retention objectives, and I would like to yield to General Navas, who can give you a little bit more detail on that, but we have done I think exceptionally well under the conditions we have had.

ARMY NATIONAL GUARD RECRUITING AND RETENTION VERSUS
OPTEMPO

General NAVAS. Senator, last year was a banner year for the Army National Guard. We finished our year 3,000 soldiers above our program end strength of 367,000. We finished about 370,000. Not only that, but our attrition, that is, the soldiers we lose, was at an all-time low at 18 percent, coming down from 28 percent back in 1995. We have constantly improved our quality of the Guard, overall quality, not only of initial entry, and we are striving to even improve that, especially in the category 3B, so we have had a great year.

This year our end strength has been reduced by 5,000 as part of the QDR cuts, and we are starting that ramp down from almost 370,000 at the beginning of the fiscal year to an end strength 362,000, and so we are establishing that ramp down and yet we are maintaining our quality goals, and also our attrition rate has been very good.

Actually, our retention rate is at 88 percent for new individuals, and 119 percent of our careerists, so I would say the problem is the other way, is basically trying to renew the force, if you will, so I feel very comfortable with the recruiting and retention we have had.

However, as you look to the future with the level of funding that we have, and with the lack of adequate funding to send those individuals to school as I mentioned in my opening comments, we are having NCO's, noncommissioned officers, make a very, very tough choice. Do they go out there and train or lead their soldiers during the periods of collective training, or do they need to be away from that training to attend their own personal training?

We are asking these very dedicated Americans to make a very tough choice, be with their soldiers and do their leadership responsibilities, or go out there and do what could be seen as a selfish thing, to go and go to school to be promoted, and the reason we do

that is because we do not have in our low-priority units enough dollars to do both.

STATUS OF AIR NATIONAL GUARD

Senator COCHRAN. What is the situation in the Air Guard, General Weaver?

General WEAVER. Sir, if I may brag for a moment, we are the busiest Reserve component of all the Reserve components. Per capita we have the best retention rate, at 90 percent. We have never been busier. We are deployed everywhere the Air Force is deployed. The morale, the retention rate has never been higher. In fact, in some of our busier units the retention rate is the highest. It is hard to explain at times.

When General Fogelman, the previous Chief of Staff of the Air Force, briefed that he did not want his people away from home more than 120 days a year, our air crew members averaged between 80 and 110 days away from home a year with their deployments and other requirements in the Air National Guard, and if you tack on their civilian jobs, some of our airline pilots are upwards of 240 to 270 days away from home a year.

I heard it expressed, and my concern for the future is from one of our air crew members. He said, when I have got my wife mad at me and I have got my employer mad at me, and when I have got the Guard mad at me equally, then I know I have got it well-balanced.

I am concerned for the future. We are asking our individuals to do a lot. They are always standing up to the challenge, as evidenced by this latest buildup in Southwest Asia. My first phone call was from General Cross on a Monday morning, during the intense buildup. When he was expecting about 25 percent from the Air Force Reserve and the Air National Guard to supply airlift and tanker support, overwhelmed him with about 54 percent of the requirements he had both from the Air Force Reserve and the Air National Guard, truly a testimony of our men and women in our Reserve component.

We are over end strength right now by about 1,000. I really expect to maintain that. No one wants to leave the Air National Guard, and we are happy for that, but I do have concerns about our OPTEMPO for the future, as does the Air Force and the Air Force Reserve.

PILOT RETENTION

Senator COCHRAN. When we had the Chiefs before us the other day one of the concerns expressed was the shortage of pilots and the fact that we are seeing a lot of pilots move out of the military into civilian jobs because of the great demand and the growth in that area. Is this reflected at all in the Air Guard?

General WEAVER. We are recruiting every available pilot off of active duty. If you take a C-5 aircraft commander, you and I as American taxpayers pay about \$9 million to get him upgraded to aircraft commander. If he leaves the Air Force to go to the airlines, we want his next call either to be the Guard or Reserve.

The problem is, what we are seeing is that they are coming in the Guard and Reserve, but then, all of a sudden, they are seeing

the same type of OPTEMPO that is reflective of some of the reasons why they got off, for quality of life issues off the active duty Air Force. We have concerns along those areas as well.

We brought in as many pilots as we possibly could. We still have a backlog of potential candidates to come in the Guard, but that line is starting to shrink a little bit because as they are getting off active duty they are also realizing that the total force, the Guard and Reserve, is part of that OPTEMPO as well.

ARMY NATIONAL GUARD FUNDING

Senator COCHRAN. We heard your comments about negotiating in the Office of Secretary of Defense over the \$700 million shortfall, more or less. In your minimum requirements you were able to restore over \$100 million through those negotiations, and obviously those needs were quite clear to everyone concerned, or you would not have been able to do that.

But what happens to that other \$600 million, and what impact does that have in real practical terms about what you are going to have to cut? Can you tell us some of the things that are going to fall by the wayside without those funds?

ARMY NATIONAL GUARD SHORTFALL STATUS

General NAVAS. Yes, sir; our initial shortfall—and this, like I said, was very positive. General Reimer asked me around November, said I want to help you. What is your shortfall? I submitted a letter saying that we needed \$813 million to be able to meet our minimum training requirements to meet defense planning guidance. We worked this issue and we were able to get \$179 million added up, so there is still a shortfall of \$634 million.

That shortfall is basically \$156.2 million in schools and special training. This is sending individuals to school to be able to meet their professional qualifications.

In the case of the Army National Guard we established a policy of select, train, and promote, so that we could make our promotions in the enlisted grades based on the qualified individuals, so now when we select an individual he needs to be trained before he can be promoted. Sometimes we have to defer that training because we do not have the dollars to send that individual.

SCHOOLS AND SPECIAL TRAINING

Senator STEVENS. General, can I interrupt you? As I understand, you have only 50 percent of the amount you need to continue your present school levels. That is not a shortfall. That is a catastrophe.

FUNDING SHORTFALL

General NAVAS. Sir, we are funded at 39 percent, and if you understand that within that 39 percent we have to give priority to those units that are in a higher-priority rating. It is not spread evenly across the force.

So that is what I meant in my opening statement that we are sending individuals to school in lieu of obtaining or attending annual training with their units, so when we are doing the collective training we do not have what we call enough boots in the ground

there to be able to do a meaningful collective training, and so we have a major shortfall in that regard.

Then there is basically a \$10 million shortfall for our AGR's, our Active Guard and Reserve. That would mean that either we take money from the already underfunded schools and special training account to retain the AGR, or we will have to let go about 160 soldiers, full-time soldiers from our ranks, which are the ones that basically plan, organize, train, and coordinate our training, so that is basically the bulk of the personnel account in the area of operations and maintenance. That is about a \$450 million shortfall, which is basically in the surface operational tempo.

Operational tempo, as you know, is the dollars we get to train our units, and again, this is tiered. To meet our DPG, defense planning guidance requirements, not even title XI requirements at platoon level training, but to do an individual crew and squad, we need about 200 OPTEMPO miles. Our lower priority units are funded at about 12, 13, 14 percent of that requirement. We have units that get about 22 miles to do that training, so, therefore, there is very little collective training that these units can do.

REAL PROPERTY AND DEPOT MAINTENANCE

Also, we have about a \$98 million shortfall in our real property maintenance. Last year the congressional markup was very generous with us, and we got about an \$87 million, \$89 million to increase our real property maintenance, which is crucial to maintain the condition of our facilities where we do our maintenance, where we do our training. It is a quality of life issue also.

And then there is the "Depot maintenance" account that is underfunded about \$94 million. Without that "Depot maintenance" account our equipment is getting to the point where it is not being adequately sustained and maintained. Should we need to bring those units rapidly up, then we are going to have a problem in that.

DISTANCE LEARNING AND COMMUNICATIONS

Our distance learning and our communications accounts are underfunded by about \$73 million. That means that we might not be able to do our full support to the RCAS program to be able to continue funding it. Our distance learning initiative is going to be slipping.

You are aware that we established a goal that we are, hopefully, on track with the support of the Congress of having a distance learning classroom within 60 minutes of driving distance of every Guardsman, and we are working toward that goal.

That was supposed to be completed by the end of 1999. We had said by the end of the century. We are on our way with a shortfall of \$3 million. We might have a delay on that, and that is crucial to be able to—that is an investment in the future, because if we do not have money to send individuals to school, what we try to do is take the school to the individuals, so we can save the travel time, we can save the time away from home, we could help alleviate the PERSTEMPO, so this is an investment in the future that we need to make, and we need to find a way to sustain this program.

So that is basically where in a macro sense the \$634 million, that is where we are short, and I would be more than glad to submit for the record a much more detailed version of those numbers.

Senator COCHRAN. That would be very helpful. We appreciate that.

[The information follows:]

DETAILS OF THE \$634 MILLION SHORTFALL IN ARNG PROGRAMS

Schools are currently funded to \$81 million, which represents a 39 percent funding level of the Army validated requirements. Funds are aimed at preparing members of early deploying units with requisite skills to meet the rigorous deployment timeline demanded by the increased reliance on the Army National Guard. Funding for schools is tiered toward the "First to Fight" units. There are not sufficient funds to maintain Military Occupational Specialty Qualification for the entire force. The requested \$90 million increase to the schools funding will allow Force Support Package, enhanced Separate Brigades, and Early Deploying units to send 100 percent of required personnel to Professional Development and Military Occupational Specialty Qualification training. The remaining tiered units will be able to send 50 percent of required personnel to this training. This program is essential to the retention of quality personnel.

Special Training is currently funded to \$28 million, which represents an 11 percent funding level of the Army validated requirements. The requested increase of \$66 million will fully fund enhanced Separate Brigades, Opposing Forces support for Lanes Training, Combat Training Centers training, and Joint Chief of Staff exercises. It will fund 84 percent of operational readiness sustainment requirements such as planning, support of training exercises, preparations for operational missions, and Readiness for Mobilization Exercises. This program is critical to providing forces trained to perform their assigned wartime missions.

Bonuses are currently funded to \$127 million, an 88 percent funding level of the Army validated requirements. With an addition of \$18 million, the program will be funded to 100 percent of requirements. This program covers the Health Professional Bonuses, the Montgomery GI Bill, the Enlisted Recruiting Bonus, the Student Loan Repayment Program, and Separation Pay. The increased funding for this program is essential to maintain End Strength and meeting the Chief of Staff, Army's quality goals.

REPRESENTING THE NEEDS OF THE NATIONAL GUARD

General BACA. Senator, General Reimer in his testimony before the National Security Committee did recognize that as an underfunding for the National Guard and did list it as one of his top priorities.

Senator STEVENS. General, what the two of you just said, particularly what General Navas has said—and are you finished?

Senator COCHRAN. Yes, sir.

Senator STEVENS. I apologize for interrupting you, but it demonstrates a different relationship between the Army Guard and the Air Guard in terms of the total Pentagon structure, and it is something I have been trying to address. It is nice to know you were able to submit a letter to try to address this imbalance, but General Weaver sits at the board when the allocations are made, and this just cannot continue.

We are now operating under caps, gentlemen. We are in a situation where if we try to raise anything that is in the budget it is automatically looked at as pork by one-half of our people and attacked in the press by people who do not understand the situation that these budgets are underfunded to start with, and I do not think we have had the leeway we have had in the past to correct your situation and the fact that the Army Guard budget comes in

so underfunded creates the largest problem for this committee in the whole year, and somehow or another it has to change.

We have to find a way so General Navas and his successor is sitting there at that allocation board and that budget fairly represents the needs of the Guard Bureau as it assumes greater and greater responsibilities, and those are falling now equally heavy on the Army Guard as they have traditionally on the Air Guard, but the Air Guard, because of its relationship, has a much different situation coming before us.

I will have some other questions to ask you later, but it just—it really bothers me now, when we are operating under these caps and we have limits in terms of this, and we are going into the budget.

We are at \$3.7 billion in outlays less because of the Congressional Budget Office [CBO] analysis than the Office of Management and Budget thought we had. You put that in terms of actual authorization fulfillment and appropriations for the authorization base, and it is a substantial reduction, and that is across the board, but basically it has fallen on you.

It has fallen on the Army Guard, which I think is very unfortunate, and it really represents an antagonism toward the Guard that is not warranted under the current circumstances of our requirements worldwide.

General NAVAS. Sir, may I make a statement?

Senator STEVENS. I am going to call on my friend here. I will get back to you later. Senator

ARMY NATIONAL GUARD AVIATION MODERNIZATION

Senator LEAHY. I am glad to have General Baca and General Navas and General Weaver here.

I would say to General Baca, you have led the Guard during a period in our history where I think it has demonstrated very much the importance of the Guard in our Nation's defense. I think that trend is going to continue. Obviously, the concerns I have, and Senator Stevens and Senator Cochran and the others have is just whether the resources are there.

I understand the Active Army and the Army Guard acknowledged a shortfall of 90 Blackhawk helicopters in Guard warfighting units. This committee has strongly supported the Blackhawk program, and I am pleased the administration and the Army no longer plan to terminate the Blackhawk. What kinds of units are affected by this shortfall? For example, would there be a cost savings associated with the procurement of 10 additional aircraft?

BLACKHAWK HELICOPTER SHORTFALL

General NAVAS. Sir, I think we have turned the corner on the modernization of the Army National Guard aviation fleet. If you recall, we had a shortfall of, if we were going to replace the aging UH-1 fleet in the Army National Guard, which is basically our light utility helicopter, there was not light utility helicopter substitutes, so basically the plan would have been to substitute all of those Hueys with Blackhawks. That would have created a tremendous shortfall on the order of 400 and some Blackhawks.

What we have done, working with the Army in an Army aviation modernization plan is to establish a requirement for 90 Blackhawks over the next years, of which 50 of them are in the POM, and we still have 40 of them that we need to work and see how we can get that as we build the programs. This would allow us to modernize our priority units, mostly our air ambulance units, with the required Blackhawks.

Also, we have, working with the Army, looked at ways to alleviate the light utility helicopter shortfall by cascading equipment, by looking at perhaps some other alternatives, by transferring missions from the Active Army to the Guard, and this is a work in progress that we have, but at least we see an initial plan to recognize and procure over about 90 Blackhawks over the next 5 years which would basically go a big way into modernizing an otherwise aging fleet.

F-16 UPGRADE

Senator LEAHY. Thank you.

General Weaver, at the risk of sounding parochial, something that never happens in the Appropriations Committee but I will break with tradition, it was announced that Vermont's F-16 unit, the 158th Fighter Wing in Burlington, is going to change its mission from air defense to general support. Is the Guard going to upgrade these jets so they can deliver precision weapons? Are they going to have to be upgraded?

General WEAVER. Yes, sir; again, thanks to this great committee in the past, what we have been able to do through the Guard and Reserve "Equipment" account is to take an entire missile design system [MDS], or the F-16 fleet, and put the ability on those aircraft to do what the warfighting CINC's actually need, precision-guided munitions and what-not.

We still have a way to go with all of our F-16 fleet, but we are in the throes of putting a precision strike capability on our F-16's, the data linkup requirements from the F-15's, the F-16's, and the A-10's, night vision capability, so it is great to have the air machine, but unless it is the air machine that the CINC's really need to be able to fight with, it is going to be tough in the future to be a participant in the total force.

But again, thanks to this committee, in the past we have been able to modernize those F-16's and look forward; to be able to do that.

Senator LEAHY. If you could have your office keep me posted on how it is going on that particular unit in Vermont, I would appreciate it.

General WEAVER. Yes, sir.

CIVILIAN TECHNICIANS

Senator LEAHY. My last question, General Navas, I saw the Army Guard is reducing the number of civilian technicians in Vermont by something like 20 percent. I wonder, are these cut because of the "Quadrennial Defense Review" [QDR], and are there similar cuts in other States?

General NAVAS. Sir, as you know, the Congress established a floor of 25,500 military technicians. We had some force cuts taken

in the Army back, not as part of the quadrennial review, but prior to that, based on the 1993 off-site. Those cuts to the technicians were appropriated because when you take the structure down you take civilians.

There was an action by the Department of Defense that took down—took civilian cuts and applied them to the technicians, so that was kind of a double whammy, because not only you took the cuts proportional to the force structure, but then it came down to also another cut, so that left us with a shortfall of about 811 technicians from that ceiling.

Now we have in the way—and this is an accounting issue. The way the civilian pay is accounted for, or programmed, there is a time lag, and due to the fact that we have so many diverse zip codes where you have the locality pay adjusted, and also because of the nature of our civilian force, that we have a lot of wage grades, there is a shortfall of \$68 million that we do not have available to pay for our technicians. Since we manage technicians to the budget, the number of technicians that we can field out there would be reduced by that amount.

Senator LEAHY. I understand the reason for it. I just wanted to make sure that we are not facing a disproportionate number of cuts in our State and I am thinking of the percentage of our force reduction, but it appeared to me—without knowing the numbers from the other States it appeared to me as though we were getting a disproportionate cut in Vermont.

MILITARY TECHNICIANS BUDGET

General NAVAS. Sir, we are trying to manage technicians to budget, and also we are also giving priority to the high priority units, and this is precisely—and again, I do not want to sound like a broken record, but when you tiered your resources and then you have to allow for States that have high priority units at the low priority units, you barely are able to meet the minimum requirement of 50 percent. In some cases we are going to 34 and 32 percent fill, and I think that happens in some States where they do not have the higher number of high priority units, so that is how we allocate the technician cut.

Senator LEAHY. Thank you.

Thank you, Mr. Chairman. I have to go to a Judiciary Committee hearing, but I appreciate the opportunity to be here.

Senator STEVENS. Thank you for coming.

Senator Dorgan.

HAPPY HOOLIGANS

Senator DORGAN. Mr. Chairman, thank you very much. I appreciated the testimony. Let me address a question to General Weaver, if I might. General Weaver is familiar with the Happy Hooligans in Fargo.

General WEAVER. Yes, sir, very well.

Senator DORGAN. It might be interesting to note for the committee and the chairman that the Happy Hooligans are farmers and pharmacists and barbers and plumbers and teachers, and they have won two occasions, including one recent occasion, the William

Tell Award, which is the award given to the best fighter pilots in the world.

So it is, on at least one recent occasion, National Guard pilots, flying the wrong airplane, because the William Tell competition was expected to have been won by, I believe, the F-15, a bunch of farmers and teachers and others from Fargo, ND, won the trophy for the best fighter pilots in the world, and that is some distinction for a National Guard unit.

General WEAVER. I could not say it better myself, sir.

Senator DORGAN. Well, I will say it again, then. [Laughter.]

General WEAVER. That picture of the Happy Hooligans is also in our front office, sir.

F-16 UPGRADE

Senator DORGAN. We are enormously proud of them.

Let me ask you a question about the airplanes they fly, and this is a good segue to do that. They fly F-16A's at this point, and I am wondering what the plans are to go to F-16C's at some point.

General WEAVER. Sir, as we went through the QDR, and when I say we, please understand that is total force, Air Force, Guard and Reserve, the Air Force was intent on modernizing our A models and they saw an opportunity to be able to do that by reducing force structure on the active side, taking C models off of active duty and putting them directly into our Guard units where we have the A models.

Because of a problem later that seemed to be too difficult to do at the time without having further conversations concerning BRAC and what-not, it was deemed too difficult to do at the time. The Air Force, the Air National Guard, and the Air Force Reserve are still looking to possibly doing that in the future, but we do have concerns about the upgrades in the future of our A models, as I said earlier, to make them available for the CINC's, the warfighting CINC's with the precision-guided munitions and all the things we need to go on our fighters for the war fight.

I would look at the future, the different options that we have got to do that, either SLEP-ing the surface life extension program, the cost-effective one, but it does not really give us a lot of capability, mid-life one that we are looking at as far as putting a lot more money, or possibly purchase of new ones in the future, or if we are able to, as we look, as we still downsize the Air Force possibly in future years, to take some of that force structure off of active duty and as they have done in the past to modernize our force structure in the Guard and Reserve.

Senator DORGAN. Let me ask you a question, and I am meeting later with General Ryan later today, and I will not tell him what you said, but I am curious, we are enormously proud. Why would a National Guard team win the William Tell award under any circumstances? Wouldn't you expect them never to win?

General WEAVER. Well, it was interesting, and it was also during—I tell a story. It was during BRAC at the time, the last BRAC round, and I sat on the Base Closure Executive Group for the U.S. Air Force, representing the Air National Guard, and during that week, as the results were being given, they had the Happy Hooligans and our individuals from Vermont really at the low end, and

no one really took them seriously, and during the week it was reported every day what the results were, and during the week they were slowly coming up through the ranks as the contest went on, and as you know, that weekend all the results were known, and the Happy Hooligans were No. 1 and right behind them were our Green Mountain Boys from Vermont, but it was not announced Monday at that staff meeting about who really won that contest with those much older airplanes and the much older fighter pilots, but it served us well during the Base Closure Executive Group.

Senator DORGAN. That is good to know, and it says a lot about the quality of the people flying those planes and the crews that maintain them.

DISASTER RELIEF

Let me, Mr. Chairman, just finally say to Generals Navas and Baca that you know that North Dakota suffered this enormous disaster last year, the worst flood in 500 years and seven blizzards, the worst in 50 years, 3 years' worth of snow in 3 months.

It was a pretty significant disaster, and we received enormous help from the men and women of the Guard, and we could not have pulled through what we pulled through in North Dakota without the help that the Guard provided, and the men and women of the Guard risked their lives to save other lives and we are enormously grateful for what your men and women did in North Dakota, and most of them, of course, are our friends and neighbors.

General BACA. Thank you, Senator. I am sure you can be justifiably proud of your Guardsmen, and I tell you, I get the same reports literally from States all over the Nation from their Governors and from their elected representatives, and the Guard traditionally for 361 years has done that mission, and we are very proud of the way we do it.

Senator DORGAN. Mr. Chairman, thank you for calling this hearing, and I have a Commerce Committee hearing going on as well, but I appreciate very much your calling this.

F-16 MODERNIZATION

Senator STEVENS. Thank you very much. We appreciate your coming, Senator.

General Baca, let me just put it this way. As I look at this budget, based upon 1998 levels alone the Army Guard has \$184 million that it is short on personnel, \$450 million short on O&M, \$200 million short on procurement and \$160 million short on Milcon, a total of \$994 million shortfall for the Army.

And in the Air Guard we see \$160 million shortfall in Milcon, \$260 million shortfall in procurement, particularly in the C-130J's, and \$150 million short in other equipment, a total of \$570 million. Now, that is just off the 1998 level. That would not allow for any increase, and all the problems you face in worldwide deployments. We are at least \$1½ billion short out of a total of some \$10 billion.

You have about \$10½ billion, and you are about \$1½ billion short of the 1998 level alone. That, with the budget we have presents us with a tremendous difficulty to just keep up the pace we established last year. So I want to ask you some basic questions about that.

Let me ask General Weaver first, if I may, what is your highest priority in replacing your equipment, the F-16A's or the C-130J's?

General WEAVER. It is the modernization of our F-16's over all, sir, to give them the precision guided munitions we really need to do. If I am looking to get to the war fight I need our fighters to be able to have all of the right things that the CINC's need. That is the night vision stuff, the precision-guided munitions, in order to be able to be a part of the fight.

The C-130J's have been really great as far as the modernization of our C-130's and our older ones, and I have to give the credit to the Air Force for this year, under General Ryan's guidance with General Cross, in taking the C-130 community and putting a program together for the future with all of the C-130's and what we need to do, and it is a total force plan.

But the important part of the war fight, getting to the war fight, is our precision-guided requirements for our F-16's and F-15's as well, sir.

PACIFIC RIM OPERATIONS

Senator STEVENS. General Navas, General Lestenkof is going to be here later, but we are working now in the Pacific rim to give our Guard, the Alaska Guard a greater role in contingency requirements in the whole Pacific. The level of search and rescue is down, the level of deployment is down, and there is a requirement now for a greater role of the Alaskan Guard to fulfill some of those gaps. Is there support in the Guard leadership for this expanded role of the Alaska Guard in the Pacific?

ALASKA NATIONAL GUARD'S EXPANDED ROLE IN THE PACIFIC

General NAVAS. Yes, sir, definitely. We have been working very hard over the last 1½, 2 years, with General Lestenkof in looking at like we are doing, in fact, with most of our Guard structure to try to look for a mission for the units so that then once the unit is missioned, then we can apply resources to that unit.

We have been looking at converting some of the structure in Alaska to some more relevant structure like aviation. We have a plan there to put more aviation structure in Alaska. We have started with Blackhawks.

Senator STEVENS. Let me ask you about that, if I may. We have planned to try to get additional UH-60 Blackhawks into the Alaska Guard, and we have also got a request for cold weather equipment to upgrade the existing helicopters. Which has the highest priority, in your opinion?

PRIORITIZATION OF UH-60 HELICOPTERS VERSUS COLD WEATHER EQUIPMENT

General NAVAS. Sir, I think we need both. I think we need to modernize the aircraft, and I think we need to make sure that that aircraft that we put in those conditions can operate in those conditions, and so I think that we have—it is both. We need to do both, and I think the goal is to wind up with 24 Blackhawks there. I think—and I hope my memory does not betray me. I can provide the information for the record, but I think we are well on our way.

We have 21 out of the 24 needed, and basically we had \$9.5 million in the 1997 budget to equip those aircraft with the cold weather gear, and so I think we are on track with what we have been trying to accomplish in Alaska.

Senator STEVENS. You do not need any additional money to do that?

ADDITIONAL FUNDING FOR HELICOPTERS FOR THE ALASKA NATIONAL
GUARD

General NAVAS. Sir, I would have to check with Alaska and see if this \$9.5 million in 1997 is what is required, or if there would be anything more. I do not have that information right now, sir. I can get it for you.

Senator STEVENS. Thank you very much.

STATE OF READINESS

Now, General Baca, you are leaving us, and as I said, we are sad to see that, but tell me now, as you prepare to wind down your tour, what do you think about the state of readiness of the Guard?

General BACA. Senator, I will tell you, based on the resources we have received, the readiness of the Guard is outstanding, but as you know, readiness is a matter of resources, and as our resources have been dwindling, as they have been going down, particularly on the Army side you see the contrast between the Air and the Army, where all the Air National Guard units are resourced to be at C2 level or better.

And where you are lacking the resources in the Guard, it is amazing to me as I go out and travel around the world, and travel in the States, at the high level of readiness that the Army National Guard has been able to maintain, in spite of its lack of resources.

But I am afraid and I am concerned, Senator, and that is why I would see the \$634 million as our top priority. I am concerned that as our resources continue to dwindle, that we will not be able to maintain that high state of readiness that we have been able to maintain, and for all the reasons that General Navas articulated.

And also to point out to you, Senator, that as I go out to these units, it is the lower priority units, the ones that are not being funded, that are performing most of the missions out there, many of the divisional units. I just came from Croatia, and I witnessed Charlie 3 of the 116th, a unit out of the Virginia National Guard, out of one of our divisions performing magnificently.

But I am concerned, Senator, that if we do not address that shortfall, that we will not be able to maintain those high states of readiness.

As I go around and I see the professional guardsmen out there, and they are doing a tremendous job, if you do not have the money to send them to schools, if you do not have the money to get them qualified, if you do not have the money to be able to have them participate in collective unit training, our guardsmen are going to begin to vote with their feet. They are going to begin to walk, and we are going to lose those high recruiting and retention rates that we have today, sir.

PILOT TURNOVER

Senator STEVENS. Well, that leads me to you, General Weaver. I was disturbed with what you said. If you have people waiting on the list that are coming out of the regular Air Force—and we have more coming out. We were told the other day that over two-thirds are not reenlisting in the Air Force, the pilots.

General WEAVER. Yes, sir.

Senator STEVENS. And many of them are going to want to continue to have some contact with high performance aircraft. That means you. We have empty billets in the Air Force, but you do not have enough billets for them in the Air National Guard.

General WEAVER. Right now I have got about a 400-pilot shortfall, but that is just a normal turnover out of our total 3,500 pilots authorized.

Senator STEVENS. But General, respectfully now, it is not a normal turnover. The normal reenlistment rate would be in the seventies, and it is down to 29 percent last quarter. It is not a normal turnover, and we would like to find some way to track those guys.

General WEAVER. I meant normal turnover for us, not for the Air Force. I am sorry. I misspoke.

Senator STEVENS. What are we going to do to expand those spots so that you can put these people back where they want to be and keep them ready?

General WEAVER. We are exploring with the Air Force, in fact, every possibility of obtaining every air crew member getting off of active duty, for whatever reason, bringing him or her into the Guard and Reserve to include—and we are looking at things, particularly in the Guard, of increasing the numbers of air crew members, increasing the air crew ratio, looking at some of our full-time people who want to get off active duty but still do not want to go to the airlines, looking at increasing our technicians' starting pay, looking at some type of bonus for them as well, looking at having the ability to get through the ceiling.

If they are getting off of active duty at this time, they are getting off as usually senior majors. Before, they were getting off as captains. We are looking at trying to get relief in the upper grades to bring them on as well, so we are exploring every possibility to take that young man or woman getting off active duty to bring them into the Guard or Reserve.

The challenges that we have, though, is that our OPTEMPO is starting to increase, and increase to the point where they are looking at Guard and Reserve maybe as not as good an option as they thought, but we are also trying to address that as well by the study we have going, the FTF, the future total force, and how to leverage each other, leverage the Guard, leverage the Reserves and the Actives together to help relieve this OPTEMPO, which is really driving people out.

It is not the money. It is the quality of life that our active duty members are having, and it is starting to have a little bit of an effect also on the Guard and Reserve, and I am concerned about that.

QUALITY OF LIFE

Senator STEVENS. We have talked to people. I have talked to some from home. Our refueling wing and also the search and rescue group are both having deployments overseas, and at an increasing rate. The people we talk to, the pilots we talk to overseas indicate some of them have been away from home more than one-half the year.

General WEAVER. Yes, sir.

Senator STEVENS. That is not conducive to reenlistment, and it is not conducive to staying with your outfit, either.

Now, somehow or another those slots have to be expanded, and the one area that they are getting this extremely heavy duty in terms of these containment missions in Bosnia and in Iraq and Korea, it is the pilots that are flying night and day the circles and squares, and that drives them nuts, and they quit. If you give them the same job once they come out, they are not going to stay with you, either.

General WEAVER. That is correct, sir.

Senator STEVENS. Have you got a study that is active?

General WEAVER. Sir, we are really aggressively pursuing this, because there is a window of opportunity, and it is going to increase in a way that, with the airlines even hiring more, and there is not going to be any slowdown in the airline hiring, and they prefer military pilots.

We need to capitalize on this draw, looking at increasing the crew ratio of our aircraft, of both tankers, airlift, and fighters. That will drive a bill. How much of a bill, and can we pay that bill? We are looking at that corporately as well.

Senator STEVENS. Let me make a suggestion to you, that you look at trying to bring some of these guys back on. They are majors and above, most of them, I understand.

General WEAVER. Yes, sir.

Senator STEVENS. Bring them back on in terms of a lower grade as far as their participation in your structure, but maintain that grade for purposes of their retirement. Have you done that?

General WEAVER. No, sir; we have not, but we can look at that.

Senator STEVENS. We would like to find some way to keep those people proficient. They are the most proficient, and I would urge you to let us know, and give us some kind of an idea, moneywise, what we are talking about. We want to help with that.

That is probably—of all our hearings we have had so far, the decline in the reenlistment of pilots across the services, but particularly the Air Force, is the greatest. Have you had a decline in pilot retention?

ARMY NATIONAL GUARD PILOT RETENTION

General NAVAS. Not really, sir. As a matter of fact the Army is experiencing that there is a shortfall of AH-64 aviators in the Army, and we are working very close with the Army Office of Personnel to put some Army Guard AH-64's—this is the Apache helicopter pilots—on short tours of active duty to alleviate this condition in Korea, and we are working that very closely, so there is that.

We have still not experienced that in the Army Guard yet.

Senator STEVENS. I have a series of other questions I would like to submit. I am preoccupied by the pilot problem. We do want to see if we can find some way to deal with it, and I would urge you to give us your ideas.

Do you have any last questions, Senator Cochran?

Senator COCHRAN. Mr. Chairman, yes, I do. Following the lead of Senator Leahy, I do have a couple of parochial issues to raise with the panel.

Senator STEVENS. They are not unknown here.

Senator COCHRAN. I did not think you would object.

The C-17's at the airlift wing in Jackson, MS, are scheduled to be deployed and fielded there. I think that is the first Air Guard unit in the Nation that will actually have C-17's. I wonder if that program for deployment and fielding those is still in place, and what is the timetable?

General WEAVER. Absolutely, and I can give you the exact timetable for the record, but we are looking at the beginning the air-planes at about 2003 or 2004 timeframe. We are looking at training beginning that same time as well.

We are looking at exploring possibilities of a possible simulator, as well, for Jackson, because the way of training for our big air-plane drivers now is how the airlines have been doing successfully for many years. That is by putting air crew members in simulators to help cut down on the wear and tear of the airplanes, and really it is a cost-effective way of doing business, and the program for Jackson is on track, sir.

Senator COCHRAN. Is there any need for lead time, military construction or preparation for that event? I hope you would point that out and what the expected dates for that would be, and the amounts of funding necessary.

General WEAVER. We are working that very closely with General Cross, who is a supporter of this, and we look good right now, sir. [The information follows:]

C-17'S IN JACKSON, MS

The Air National Guard is the first Reserve Component Force to receive the Air Force's newest strategic airlifter, the C-17 Globemaster III. Preparations are well under way to receive the C-17 at Thompson Field, Jackson, Mississippi. The following Military Construction projects are planned and included in the Future Years Defense Plan to support the C-17 beddown at Jackson, Mississippi:

[In millions of dollars]

<i>Fiscal year / Project</i>	<i>Program Amount</i>
2001—C-17 Corrosion Control Hangar/Shops	10.0
2002—C-17 Squadron Operations Facility	3.5
2002—C-17 Upgrade Hangar and Shops	8.0
2003—C-17 Upgrade Fuel Cell and Shops	4.9
2003—C-17 Upgrade Short Field Runway	2.7

Senator COCHRAN. Another program that is important in our State is the expansion of the gunnery range at Camp Shelby. We have a combat brigade, as you know, based in Mississippi, which was activated during the Persian Gulf Desert Storm/Desert Shield timeframe, and we are interested in doing what we need to do to make sure that that schedule is met.

I note the environmental impact statement was recently completed, and if you could provide us for the record the expected requirements for funding to meet those schedules, we would appreciate that very much. As far as you know, is that still on track?

FUNDING FOR CAMP SHELBY, MS, GUNNERY RANGE

General NAVAS. Sir, I do not have the exact information. I know there was an environmental issue there, and also that that was in the program, but I can give you the specific details of that, but that is a high priority, highly critical range that we need in Shelby, since that is basically the home of the 155th Separate Brigade.

RETROGRADE PROGRAM

Senator COCHRAN. I notice, General Baca, in your statement you talk about your retrograde refitting and repairing equipment out of the European theater, where it has been excessed there, and you are able to, in a cost-efficient way, provide the Army National Guard with equipment that is refurbished. The Kansas and Mississippi Army National Guards were awarded a bid for operation of this rebuilding program.

Could you bring us up to date for the record, or if you have information on it now, what the status of that program is, and what the requirements for any funding in connection with it would be?

General BACA. Sir, I can give you all of the details for the record. [The information follows:]

Following the Desert Shield/Desert Storm conflict, the Army National Guard (ARNG) opened nine sites to repair 5,571 pieces of equipment that were used in the operation. This program was so successful the ARNG was approached by Headquarters Department of the Army (HQDA) in 1993 with a request to undertake the repair of equipment left in Europe when the large draw down of personnel occurred. The ARNG developed a business plan and projected a fully burdened labor rate of \$34 per hour. The plan was approved by HQDA and seven sites were opened which subsequently received 8,876 pieces of equipment valued at \$2.6 billion. The ARNG partnered with the States to repair and distribute the equipment. The majority of the individuals employed were members of the ARNG. This mission provided valuable training to 475 individuals and also acted as tremendous recruiting and retention tool. Based on experience gained in Desert Shield/Desert Storm and later the Retrograde Europe (RETROEUR) programs, the ARNG decided to leverage its capability of producing a superior product at a reduced cost. The first program implemented is the remanufacturing of 2½ ton tactical trucks in Kansas and Mississippi. The level of maintenance required to remanufacture 2½ ton trucks is lower than that performed on equipment returning from Europe and it is well within the capabilities of the ARNG. The ARNG, in this program, will benefit from the training of soldiers in their Military Occupation Specialties (MOS) with additional benefit to the ARNG's recruiting and retention effort. The ARNG has already purchased 20 kits (which includes all the parts required in remanufacturing a truck) to be used in the validation of the remanufacturing process. When the sites go into production, parts will be obtained through commercial sources and contracts. Two universities have been contracted to conduct the validation process and when the process is complete the sites will be ISO 9000 qualified.

The ARNG is utilizing National Guard and Reserve Equipment Appropriation (NGREA) funding to support the remanufacturing program consistent with congressional guidance. The funding needed to support the program is a minimum of \$30 million per year. This funding will allow over 550 trucks to be produced per year and will substantially increase the readiness of our units.

General BACA. Let me mention, that was one of the real success stories of our retrograde. All of our retrograde equipment from Europe, we had several sites in addition to Kansas and Mississippi.

We had a total of five sites, I believe, throughout the United States that repaired that equipment and put it back in service, not only for the National Guard but for the total force, extremely economic way of doing it, probably about one-third the cost that it could have been done any place else, very efficient and very effective, and I think Army Materiel Command [AMC], Gen. Johnny Wilson would reinforce what I am saying now, that it was an effective program, and I see that that program can mature and it can build, and it can go on to other type maintenance activities, other than just retro units.

WEAPONS OF MASS DESTRUCTION

Senator COCHRAN. There is a piece in the Washington Post this morning about Secretary Cohen's announcement that he is going to have some 20—well, 10 new emergency teams to help domestic agencies respond to attacks with chemical and biological weapons, and he says in the press release, which we have a copy of dated March 17, that there will be 22 full-time National Guard personnel in each unit.

I think they are called rapid assessment and initial detection elements, 10 rapid assessment and initial detection elements.

I assume there will have to be some training in regard to that, and some funding that would be available. Apparently, about \$49 million being requested in this budget relating to terrorist response programs for weapons of mass destruction reaction teams and the like. Is this amount sufficient to deal with this new program, or do we need to add funds to that account to make sure that you have the resources to meet this new challenge?

General BACA. Senator, first let me state that, as you know, the national defense panel identified that as one of our threats, the asymmetrical threats going into the 21st century, one that is tailor-made for the National Guard, because we already do that kind of response in our normal mission, and as a constitutional role of the National Guard.

The 10 teams that Secretary Cohen was talking about is the initial test, and they are setting up by the 10 FEMA regions, but eventually we would want a team in every State in the Nation.

I believe the teams, the requirement for the teams themselves, the funding requirements that are in this budget are about \$19.9 million of the \$49.2 million that have been requested. That is what is going to be required now to organize and to establish these first teams.

COUNTERDRUG MISSION

Senator COCHRAN. We already have the Mississippi National Guard involved in counterdrug training. There is an academy at Meridian, MS, which I have toured and am confident that they are doing a good job. They have graduated over 9,000 police officers and personnel from a four-State area who have come there for training.

And I point that out because I know there is a request in this budget for continuation of that program, but I am advised that the budget request may be underfunded by over \$2 million. Could you provide for the record what the needs are to continue the

counterdrug training academy at Meridian, and whether or not this new weapons of mass destruction assignment could be considered for inclusion in that program, particularly if you are going to be integrated with FEMA personnel and local law enforcement officials. It sounds to me like this may be a model for including a training site for that purpose at that location.

General BACA. Senator, we are in the midst now of doing a study to determine what the requirements are going to be, and I can assure you that training is going to be one of the top requirements. We have got already your facility and the one in Florida and the one in California that I am sure will play an increasing role in the training in weapons of mass destruction [WMD], and so I will provide you that information for the record.

[The information follows:]

In fiscal year 1998, the Regional Counterdrug Training Academy (RCTA) received \$2.2 million of the Presidents Budget and \$0.9 million in Congressional plus-ups for a total budget of \$3.1 million. The RCTA taught 150 courses reaching an audience of 2,200 students. In fiscal year 1999 their funding is at \$2.2 million, which will result in a significant decrease in the amount of law enforcement officers they will be able to train. In order to train the maximum amount of law enforcement officers their facilities would allow (backlog of 3,863) the school would require an additional \$2.5 million for a total fiscal year 1999 budget of \$4.7 million.

Senator COCHRAN. Thank you, General. Thank you, Mr. Chairman.

Senator STEVENS. Thank you, Generals, for what you are doing for the country and leading the Guard units. We appreciate you coming, and look forward to being with you, and General Baca. We look forward to seeing you before you step down from your position.

General BACA. Senator, if I may just say a word here. I did not mean to indicate that by any means I am a lame duck. I have got 4 more months to go, and I am going to give it all I have got for the next 4½ months, but Senator, let me just say, now that I have this opportunity and this forum, we mentioned about the fact that I traveled with you to Alaska, and I was glad that I did that early on.

And I gained a tremendous amount of experience with you actually going to visit—you know, we jokingly talk about the salmon fishing, but I will tell you I have never worked any harder than I did on the trips that I went with you, Senator, and you accompanied me to every location, even the remotest places, and your concern for your Guard units and your concern for your State, but more than that, your concern for all of national defense has served as an inspiration to me during the last 3½ years.

And Senator, I will tell you that it has been an honor and a privilege to work with you, and I just wanted to say that publicly.

Senator STEVENS. You are very kind. We appreciate that.

YOUTH CHALLENGE PROGRAM

STATEMENT OF MAJ. GEN. JAKE LESTENKOF, ADJUTANT GENERAL OF ALASKA

ACCOMPANIED BY LT. COL. FRANCIS B. WILLIAMS, DIRECTOR, GEORGIA YOUTH CHALLENGE ACADEMY

Senator STEVENS. Let me now turn, gentlemen, to this other panel. We thank you very much. We would excuse you now. We are going to hear from several witnesses who will discuss the Youth Challenge Program.

General Baca, General Weaver, General Navas, we have with us today Maj. Gen. Jake Lestenkof, who is the Adjutant General of Alaska, and Lt. Col. Francis B. Williams, the Director of the Georgia Youth Challenge Academy.

They are accompanied by Tiffany Nicole Brown, a student from the Georgia Youth Challenge Academy, Joshua Bryson Phagan, a student at the Georgia Youth Challenge Academy, and Alex J. Sparra, a sophomore at the Citadel, who is a graduate of the Georgia Youth Challenge Academy.

Let me ask you all to come up here and join General Lestenkof, if you will. We want to welcome you here, and to give you an opportunity to make statements. There may be other Senators coming later who are interested in your program.

General Lestenkof, I welcome you here as a fellow Alaskan, and also remember so well the visit that you arranged for me to our Youth Challenge Program in Alaska and the wonderful reports we are having concerning that program. So let me ask you to proceed with your statement, and if you have any opening statement with regard to this program, Senator Cochran.

Senator COCHRAN. Thank you. I am very happy to have an opportunity to hear the testimony of these witnesses. It is an interesting program, and I think it is a very worthwhile program, and I am confident their testimony will bear that out.

Senator STEVENS. Thank you for coming. I know it is a different experience for you. It is nice to have you here.

General LESTENKOF. Thank you very much, Mr. Chairman. Thank you for inviting me to appear representing the National Guard and the States to talk about our Youth Challenge Program.

I have submitted written testimony for the record, but before beginning my remarks, I know you have introduced Colonel Williams, who is the Director of the program down in Georgia. I will ask him again to introduce the students and the cadets that are here today. Probably my remarks will be certainly overshadowed by the comments that the youngsters will bring to the committee, but Colonel Williams, would you introduce them once more?

Colonel WILLIAMS. Thank you, General. Sir, today I have with me Joshua Phagan from the present class at Youth Challenge in the Georgia program. I have Alex Sparra, who graduated 2 years

ago from the Georgia program class 6. He is currently enrolled at the Citadel in South Carolina. I have Ms. Tiffany Brown, who is also in the current class the Georgia program.

YOUTH PROGRAMS SUPPORT

General LESTENKOF. Thank you, Frank.

Let me begin with my prepared remarks. I am here to speak today on behalf of the National Guard sponsored youth programs, the Challenge and the Youth Conservation Corps for fiscal year 1999 funding. Hereafter, during the remainder of my testimony I will refer to both programs as the Challenge Program.

The National Guard provides the oversight and support for Challenge. When you consider that the Guard is located in over 3,400 communities across America, you understand our wide reach. It fits the civil support mission that most Americans are familiar with, fulfilling the State mission of the Guard.

The National Guard has the required infrastructure in place to support such a program. We also have the availability of trained people in the areas of organization, planning, execution, self-discipline, training, and especially leadership.

The National Guard and the Challenge are the natural partnership between hometown America and the military. We are on Main Street. The lights are on and someone is home to take a hand with helping America's youth at risk.

We provide a bridge between the military and our youth at risk with the Challenge programs. Years ago, judges would adjudicate at-risk youth to military service. Frankly, many young people simply needed the structure, the discipline, and a caring environment to change failure into success. Those days, like the military draft, are in the past. However, thanks to Challenge we are able to provide the same qualities of structure, discipline, and a caring military environment for a new generation.

At its core, the Challenge is a preventative rather than a remedial program. It is based on eight prime components that support the development of the whole person in terms of mind, body, and the personal values. They include leadership, fellowship, community service, job skills, academic excellence, responsible citizenship, life-coping skills, health, education, and physical training.

Emphasis on self-discipline, self-esteem, and the development of healthy lifestyles are the bedrock of the success of these young men and women's experience; 91 percent of our Challenge members from our last recent class graduated. Now, that is higher than the national high school average. This is very significant, because 100 percent of our graduates were already dropouts, or expellees from traditional school systems.

Over one-fourth of our young people in America are dropping out from our traditional secondary schools. These disenfranchised and disillusioned youngsters are at a high risk of turning to a life of drugs and crime. We must believe that these young people can be saved. The Challenge Program is turning high-risk young Americans who are statistically headed for a dismal future into self-confident, contributing citizens of our country, our States, and our communities.

Let us be clear with one another on behalf of these children, their families, and the future of America. The young people that come to us are doing their part. We, the National Guard, are striving to do ours, and America needs your continued and ardent support for these programs and we appreciate the support of you and the committee in the past.

Thank you very much.

Senator STEVENS. Well, General, let me tell you, it is very important that you come here today, because in the 1998 bill we are operating under now you have 15 programs in the Guard, and they cost the taxpayers about \$40 million. The 1999 budget request before us is for \$25 million, which would require us to reduce the number of programs underway.

We have requests now for additional programs of 38 in total so far. I assume eventually we would have 50 plus the territories, but it would cost \$82 million to fund the pending request for the program.

I am really delighted you have taken the opportunity to come, and I would like to give an opportunity to Colonel Williams and to the students here to make statements, if you would like to do so. Colonel Williams.

SUCCESS OF YOUTH PROGRAMS

Colonel WILLIAMS. Sir, I will tell you that I was sent to Challenge as an assignment. I did not believe in it. I did not think we really needed to be going there. I did not know what at-risk youth was. I told my General we did not have a dog in that fight, that we needed to be training soldiers and needed to be training killers and maintaining our equipment, and so I did it with reluctance.

I did not really know what the problem was in the United States. I did not know what the Georgia problem was. I did not really know anything about it. My background is in agriculture, and so I am not a teacher, and I am not an educator, and I have been a guardsmen.

But the first class, I found out real quickly what it was all about. We do have a place. We do have a job there. It is turning young folks around, and it is working. It is making a tremendous difference in their lives.

It is making guardsmen in their hometowns heroes by identifying these youth all over the State and sending them down and getting them back on track, and it is having results more than I ever expected of the program. I never expected the results we are getting. I am a believer now.

Senator STEVENS. Well, I had similar comments when I was with the General at the school I went to visit. The people really had become believers.

Let me tell you young people out there, there is hardly a family in the country that has not had experience with problems of trying to keep our young people in school, and this is a very interesting program. You bring us some actual experience now, so we want you to tell Senator Cochran and me what you have on your mind and what you think we ought to do with this program.

Let us start with you, Mr. Phagan.

STATEMENT OF JOSHUA BRYSON PHAGAN, STUDENT, GEORGIA

Mr. PHAGAN. I am kind of nervous right now.

Senator STEVENS. Don't worry, we put on our pants one leg at a time, just like everybody else. [Laughter.]

Mr. PHAGAN. Without this Challenge Program I know I would be in a world of trouble, or I would not even be in this world right now. Before I came in here I was on the streets. I was selling drugs. I was doing a lot of drugs. I was involved with a lot of gang activity. I knew I needed to change, and I had friends who have come through the Challenge Program and it really helped them out, and I wanted to be like that.

PREPARED STATEMENT

It is a good program. It is a real good program. I am getting my general education diploma [GED]. I am getting my CDL license, and I am getting my high school diploma, and I am now drug free and tobacco free, and it is a real good program.

I mean, I do not want to know where I would be without it.

[The statement follows:]

PREPARED STATEMENT OF JOSHUA BRYSON PHAGAN

My name is Joshua Phagan. I was born in Macon, Georgia, on March 9, 1980. I attended John H. Heard elementary school and was a decent student. After elementary school, I attended Ballard Hudson middle school, and that is when my life started to go downhill. I started using drugs really heavily. I was smoking marijuana, snorting cocaine, using LSD, and taking pills. I moved to Forsyth, Georgia, in 1993 and attended Monroe County Middle School where the drug use only got worse and I became involved with gang activity and violent engagements using deadly weapons. In 1994, I attended Mary Persons High School where the downhill slope of my life became a 90-degree angle straight down. I knew that it was time for a change, but I couldn't do it by myself. That is when I found out about Youth Challenge Academy and all its benefits. At first, my parents didn't like the idea of it and just told me to stay in school, but I couldn't because I was constantly getting suspended and skipping school so I could get high. After they found out more and more about the program, they began to like it more and more. This program is what I've been looking for to turn me completely around and get away from the wrong crowd that I have been looking to get away from for so long. I'm a 100 percent drug-free Cadet with a GED and hopefully a high school diploma and commercial driver's license.

After I graduate, I plan to go to the military and go to college to get a degree in business and start my own business. All this I know I can achieve, because of Youth Challenge. Without Youth Challenge, I would most likely be dead or in prison. I now realize that five months is worth giving up to better the rest of my life.

Senator STEVENS. Thank you very much. We are delighted you are here today. How far are you from finishing the program?

Mr. PHAGAN. We are in the 7th week of a 22-week program.

Senator STEVENS. You have made marvelous progress.

Let me turn to the young lady first.

STATEMENT OF TIFFANY NICOLE BROWN, STUDENT, GEORGIA

Ms. BROWN. My background, I grew up in Savannah, and I went to school and I dropped out of school, maybe just because of the environment, wanting to hang out, and I remember it was like, I was not involved in any gang activity, or had any involvement on drugs or anything, but the program is ultimately magnificent, and it just helps us a lot, allows us to get ready to work to go in our jobs in

the military, or college, or whatever it is that we need to do to help us tremendously.

And I see a lot of people coming in who really need help, and it has helped them. Basically, it is really great and it really helps the community and all the children.

[The statement follows:]

PREPARED STATEMENT OF TIFFANY NICOLE BROWN

I'm Tiffany Brown, from Savannah, Georgia. I'm a 17 year old cadet at Georgia Youth Challenge Academy. Youth Challenge has been an inspiration to many adolescents. When I came to Youth Challenge I was totally amazed at what was offered. Previous to engaging in this challenge, I had always self-directed and determined to pave my own way to success. As an outgoing and versatile youth I was given all opportunities to excel. I had the very best of a family who always encouraged me. I feel blessed because to me my life so far has been a unique experience. Throughout my life I have always worked diligently at whatever I wanted. Truly I am not merely half of the way there, but through Christ he will lead me to success.

While growing up in this ever agonizing but peaceful decade, I attended Sophrona Tompkins Middle School and Alfred Ely Beach High School. I participated in numerous extra-curricular activities. I've always been very active. At the age of 12 I graduated from modeling school. In 1995 I represented Savannah in the Miss Georgia Teen Pageant. In 1996-97 I also represented Savannah through the Professionals Reach-Out Program as Miss Silhouette—while having my own component called personal development and etiquette. On several occasions I've been the community's top teen. During my sophomore year of high school I attended cosmetology school and graduated. I always think ahead, so at the earliest ages I pursued to prepare for my future. I have been employed in numerous environments and job settings such as running offices and programs, childcare, floristry, sales and retail, and cosmetology. I use everything that occurs in my life as an educational experience. My goal is to be as omniscient as possible when it comes to my career limits. I have also participated in various community projects. I feel that it is very important for me to give back to my community. It has given me so much, and I feel the need to be there for the upcoming students to help them understand the importance of staying in school. I am very gracious of my opportunity at Youth Challenge Academy.

I have noticed that throughout my life I have had a different mentality and way of thinking compared to my peers. I could never understand why others didn't think like me. I've never had any academic problems in school; I just seemed to get very bored by my surroundings easily. I need an ever-changing environment to keep my mind healthily stimulated. I always felt that I didn't belong, I was odd or different, especially in a high school setting where I was allowed only to express a limited amount of my capabilities and creativity. I felt trapped and no one could ever understand me. I feel it is so important to be able to develop your own identity and personality. I wanted to lose whatever this feeling was, be myself, and go to all extraordinaires—the path which I am engraving now. I drifted away from high school and found Y.C.A. Y.C.A. was not what I was looking for to fill my personal needs, but it took my interest and gave a positive outlook toward my future. It keeps my mind busy and I always look forward to new adventures. The experience turns out to be phenomenal. This program offers all skills that adolescents need to prepare for the future. From a High School Diploma, college courses, counseling, counselor life and work skills—which physically aligns us for jobs, college, and military. They offer all types of workshops, extra-curricular activities, and a few trades, which is more than you could ever get in a traditional high school. We're involved in an array of community service projects, not to mention the military structure which gives us a disciplined and ordered atmosphere, as well as being able to learn how to interrelate with people of diverse backgrounds that prepares for living in this multi-cultural society. Being that this is a five-month program with minimal contact with our family, friends, previous environment it makes us strong and ready for survival. Youth Challenge molds us mentally, physically, and spiritually. We have numerous opportunities to unleash the spiritual side of us. The Cadre, counselors, teachers, and staff push us to endure and strive for the best. They are ever-caring and never give up on us. Neither do our peers. We live and work together as a team. It is exactly a "challenge" as said. Y.C.A. is dynamic and greatly appreciated. Marvelous. No words could express how I feel about the program, the importance of it, and how many people it has helped. Y.C.A. has graduated 1,399 cadets. What would be done without Y.C.A.?

Often we as young adults don't make the correct choices, but I feel that my experience was God sent. I want to find a way to be able to reach out more to today's youth. Helping to deal with some of the cadets' emotional issues and struggles while here at Youth Challenge gives me experience towards a possible future profession. Through the traits of different people I learn how to compromise methods of making them feel better or finding ways to help solve their problems. I have a strong desire to help others. Early while growing up I always wanted to pursue the career of a psychologist, social worker, or counselor. However over the years it has changed and now varies. After completing my challenge, I plan to join the Air Force Reserves. From there I plan to attend various colleges because I have a broad amount of interests which includes ministry. I have a purpose that I will fulfill. I am thankful that I have always been self-driven and motivated. We as young adults need the opportunity to spread our wings. Youth challenge does just that. It gives us hope and faith that no one else would. So I thank God for Y.C.A., my life, experiences, and accomplishments. Truly it is not me, but he who is within me. God Bless All.

Senator STEVENS. Are you going to be able to get your GED?

Ms. BROWN. Yes; I have already attained that, and I am about to take some college classes, and I plan to go into the Air Force Reserve and then on to college.

Senator STEVENS. That is wonderful. How far had you gone before you dropped out of school?

Ms. BROWN. I was in the middle of my junior year.

Senator STEVENS. Well, you have got a great opportunity, and I congratulate you for following up and wish you the best success.

Ms. BROWN. Yes; it has really helped me get back on track.

Senator STEVENS. Very good.

Mr. Sparra, you are at the Citadel now, right?

STATEMENT OF ALEX J. SPARRA, SOPHOMORE, THE CITADEL, GRADUATE, GEORGIA YOUTH CHALLENGE ACADEMY

Mr. SPARRA. Yes, sir.

Senator STEVENS. Tell us about your experience. How did you get into the Challenge Program?

Mr. SPARRA. Well, sir, when I was 16 years old I was having a lot of trouble in high school, skipping school all the time. I was cutting classes, getting bad grades. I was in my second sophomore year in high school, and I was pretty much doing the same thing I did during the first time I was a sophomore, just messing around and basically wasting time, and wasting my life away.

My mother was going crazy. She saw her son just wasting away, very concerned. I think it was tearing her apart, and somehow she talked to somebody and thank goodness they told her about Youth Challenge, and she came to me one day and she said, this is where it ends. You are going to do one of a few things. You are either going to drop out of high school and get a job and go to work, or you are going to go to high school and start getting good grades and graduate, and do whatever, but you are not just going to be sitting around at home skipping school, and I heard about this military program. I want you to go to boot camp for 5 months and get a GED.

When I heard that, I was completely turned off and said, no way. I knew that I wanted to go to college. I did not know where, I did not know how. If I had dropped out of high school I could not have joined the military. I could not have gone to college. I had no skills. Basically I had no work ethic, no self-discipline. I was pretty much useless.

But my mom said, please, just come speak to this recruiter, listen to what he has to say, and find out about this military thing. We had never heard of it, did not know what it was, and so I went just for my mom, and when I heard about Youth Challenge I immediately fell in love with the program. I knew this was what I wanted to do.

I saw people running around in battle dress uniforms [BEU's] doing physical training [PT], going to GED classes. It looked like it was a lot more involved than what a regular high school was. I was already going to drop out of high school. I dropped out. I applied to the program. I got accepted. That is probably where my life started to turn around right there.

I went down to Fort Stewart. I did the 5-month residential phase. It was probably one of the longest 5 months of my life. I had never been away from home before. I was scared. I was with a bunch of people that I did not know. I was getting dropped for pushups all the time, getting up at 5 o'clock in the morning doing PT. It was like my whole life was turned upside down.

I worked on my GED, I got my GED, I had the opportunity to take some college courses at Savannah Tech, and started to get things moving and started to get kind of motivated. I liked the way my life was starting to go.

I started to become productive. I was not sleeping all day. My mom was proud of me. I was finally doing something. I knew I wanted to go to college. Toward the end of the program I decided that the military life had kind of worked out for me and got me on track, and so when it came time to think about college I applied to the Citadel, and luckily I was accepted, and here I am today, sir, just to tell you about how great the program is.

Senator STEVENS. You have been through 1 year already at the Citadel?

Mr. SPARRA. Yes, sir.

Senator STEVENS. How did you work out? What kind of grades did you get?

Mr. SPARRA. Academically it was very hard for me. My first year I did not do too well. I think my main problem was study habits, because I did not learn that. I did not learn how to sit down and make myself study.

Surprisingly, though, all my classmates who had graduated from high school, a great deal of them did not have good study habits, either, and so when it came to grades I was not at the bottom of the barrel, but I was not at the top of my class, either. I was right in the middle.

This year I am doing pretty well, though. I am really pleased with my grades. I know how to plan and when I need to study and what I need to do, and I am loving it.

ALTERNATIVE STRUCTURE EDUCATION

Senator STEVENS. Good. Very good. Well, you are a testimony, the three of you, to the foresightedness of the people in the Guard. You started this program, and we who have been familiar with it from the beginning have wanted to expand it.

I have a personal reason to be interested in it, as Jake knows. I wish there had been one available for one of my kin who got a

little bit out of kilter, as you have in the past, but I do think that this is the kind of program that needs more advertising, and thank you for coming.

I see one behind you. Ms. Powell, are you part of the program, too?

Ms. POWELL. I am a staff member, sir. I am the one that wakes them in the morning. [Laughter.]

Senator STEVENS. Senator Cochran, do you have any questions?

Senator COCHRAN. Thank you, Mr. Chairman. The program I think in our State has been one of great success as well. Mississippi is one of 20 States that has an active program, and there are about that many that would like to have the program, but because of funding shortfalls are not able to. In Mississippi I am told the legislature has provided additional funds to have extra classes, and that they have an annual enrollment of about 400 students.

And they have just considered legislation that would increase that to 800. So, the States are coming up with money and using this model. It is based at Camp Shelby, with the National Guard training facility in Hattiesburg as the site for this. So it has been a great success, I am told, in our State as well.

I congratulate those of you who are involved as students, staff, administrators of the program. You have really done a great job, all of you have, and you can probably take a great deal of pride in leading the way for the whole country.

Senator STEVENS. I am going to yield to Senator Bumpers in a moment, but Colonel Williams, the thought strikes my mind that maybe you ought to also be sort of indoctrinating some of the people from the high schools in each State, the people who are teachers, to come and participate to get some ideas about maybe having classes, or having some alternative structure of education for people like this who get bored with the existing concepts of education and who drop out.

We have known other dropouts. One of them started the largest manufacturing company in the world, as you know, but they all do not have that stimulus.

Is there any way you could integrate into your program some kind of an adjunct teacher so that they could take some of these high school teachers that could get some experience in how to deal with young people like this who want a different opportunity?

Colonel WILLIAMS. Sir, I have been to a couple of the local schools around there and worked some with their alternative school people. I have also worked with Georgia Southern and had interns come down and work, and so Georgia Southern University is sending students down to look and see from time to time.

Senator STEVENS. That is very good. I think that would be a good cross-pollenization with the existing school structure.

Senator Bumpers.

Senator BUMPERS. Mr. Chairman, I just simply want to say I got in on the tail end of these youngsters' testimony, and I came here really to grill General Baca, who I understand probably heard I was coming and left. [Laughter.]

Senator STEVENS. No; he is right back there. He is waiting for you. But he is going to leave now, now that he knows what you want. [Laughter.]

Senator BUMPERS. But I also want to state that Arkansas has a Youth Challenge Program and we are very proud of it. It has been very successful.

But Colonel, let me ask you this question. Are you limited under your present budget on how many youths you can take?

Colonel WILLIAMS. Yes, sir; I am limited. The funding was for 180 students.

Senator BUMPERS. Nationwide?

Colonel WILLIAMS. For my program. For my program I was limited, and I am funded by the number of students that I carry.

Senator BUMPERS. How many students attend the Challenge Program now, do you know?

Colonel WILLIAMS. Nationwide I do not know, sir.

Senator BUMPERS. I am told by staff it is 3,566. Is that correct?

General LESTENKOF. I am told, Senator, that the number is 3,000 nationwide within the Challenge Program.

Senator BUMPERS. 2,000?

General LESTENKOF. 3,000.

CRITERIA ON ACCEPTING STUDENTS

Senator BUMPERS. This was the target enrollment, 3,566. What is the criteria, if I have a wayward youngster and I would like to get him in the program, and I brought him to you, and he has been having problems with drugs, maybe, petty thefts, that sort of thing. What is the criteria on whether you accept somebody or do not accept somebody?

Colonel WILLIAMS. The criteria, sir, is they have to be between 16 and 18 years old and have to have dropped out of high school. They have to be drug free, and what that means is, on day one I give them a drug test and it comes back negative.

Senator BUMPERS. Or you do not take him?

Colonel WILLIAMS. I do not take him if it comes back hot, no, sir.

Senator BUMPERS. Then how did you get in? You said you were high most of the time.

Mr. PHAGAN. Well, I wanted to get into the program, and so I stopped.

Senator BUMPERS. How long had you been drug free when you applied?

Mr. PHAGAN. Two or three months.

Senator BUMPERS. Two or three months, and how long have you been in the program?

Mr. PHAGAN. Eight weeks.

Senator BUMPERS. How long is the program?

Mr. PHAGAN. Twenty-two weeks, sir.

Senator BUMPERS. Twenty-two?

Mr. PHAGAN. Yes, sir.

Senator BUMPERS. And you are doing well in the program?

Mr. PHAGAN. Yes, sir; I have already got my GED.

Senator BUMPERS. What do you want to do when you finish?

Mr. PHAGAN. I want to go to college and into the military.

General LESTENKOF. Senator, just let me add that in watching this program for a number of years, probably the bottom line on any youngster coming into the program is that they must want to

attend the program. We are not going to be dragging them into the program.

If they are personally interested in attending and participating, they will make a success of this thing, because we have had people who were somewhat unsure about attending the program that we lose in the early stages of the program, so there has to be that personal motivation.

Senator BUMPERS. How many youngsters are eligible to get in and cannot get in because the rolls are full?

General LESTENKOF. It is probably running about 12 to 15 percent in Alaska, in my State, and that is the State I am familiar with.

We estimate that——

Senator BUMPERS. General, just a moment. What is it?

Senator STEVENS. Explain that statistic to him, Jake.

General LESTENKOF. The numbers, that would probably be about 30 to 40 that we would not take on a regular class.

Senator BUMPERS. That would be eligible, except you are full?

General LESTENKOF. That would be eligible that we are not able to afford.

Senator STEVENS. How many do you take, Jake?

General LESTENKOF. We take 120 at the beginning of the class.

Senator BUMPERS. And that is the most you can take?

General LESTENKOF. Yes.

Senator BUMPERS. And you have 30 more that would be eligible?

General LESTENKOF. We have 30 to 40 that would be eligible.

Senator BUMPERS. Why on Earth is the administration asking for a cut in the funds for this program, or are you the wrong person to ask?

General LESTENKOF. I am the wrong person to ask. We estimate in our State that this year we will have about 3,000 dropping out of our regular high school programs, so we are looking at an audience of about 3,000 each year that could be prime candidates for the program in Alaska alone.

Senator STEVENS. You only have one in Alaska, right?

General LESTENKOF. We just have one program in Alaska. Each State has one program.

Senator BUMPERS. Mr. Chairman, has anybody testified on why they are cutting these funds, why they have asked for a cut?

Senator STEVENS. Well, the fellow is not here. He lives at 1600 Pennsylvania Avenue.

Senator BUMPERS. Well, I can handle him. [Laughter.]

Senator STEVENS. That is why we are glad you are here, sir. [Laughter.]

Colonel WILLIAMS. Sir, if I could, last year Georgia had 31,000 dropouts.

Senator BUMPERS. Pardon?

Colonel WILLIAMS. Last year Georgia had 31,000 drop out of high school last year alone, and I quit advertising for students for my program because I get two to three times the number of applicants that I can take, and so I have a State selection committee made up of citizens of Georgia that come in and pick my students out of all the applications we go through, so there are many, many people

that are qualified there that do not get selected just because there are too many.

Senator STEVENS. If you would yield for just one question there, how many of these people as they graduate want to go out into the military?

Colonel WILLIAMS. Sir, I am running about 16 percent now, 16 to 20 percent, depending on the class. The ones that go in do really well.

Senator BUMPERS. Mr. Chairman, I do not want to pursue this any further, except to say just based on the limited knowledge I have, and the fact that I know they love the program in my State, but we are 1 of only 20 States, and I think there are more States who want to join, and with a program with a track record like this has it would be unforgivable not to increase the funds, instead of cutting funds.

This committee has something to say about whether these funds are going to be cut or not, or whether something is going to be added or not, and unless there is a lot I do not know about the program, I think it would be the height of folly not to allow these other States to enter the program and not to provide the funds for them to do it, and to provide the funds for you to be able to take everybody that applies that is eligible.

This is precisely what we talk about on the Senate floor, and hold our hands over our hearts while we are doing it, and then come in here and the thought of cutting this program is the height of absurdity.

Senator STEVENS. Senator, we are expanding as rapidly as we can. It is, as the Colonel indicates, an adjunct to the Guard functions, and their task right now is to be able to prepare people in uniform to fill in for the reduction in the regular Army and Air Force, and this—we cannot let this divert funds from the Guard's ongoing increasing burden in the military structure.

But we do want to increase them, and the difficulty is, these are military funds going into education, I hope you realize, and what we have to do is to pace it so we can increase it and expand it, and do it without depriving the Guard of the people to do the function that they must do to assist the regular services.

Senator BUMPERS. Well, Mr. Chairman, it seems to me the next observation ought to be how many of these youngsters go into the military when they finish the program.

Senator STEVENS. That is why I just asked the question. He said 17 percent.

Senator BUMPERS. Well, that is not as high as it probably ought to be, but that is high enough to maintain the program, and the thing about it is, presumably you do not have any idea of how many of these youngsters get in trouble after they leave the program, do you?

Colonel WILLIAMS. I lose about 6 percent of the ones that go through.

Senator BUMPERS. During the time they are in school, though?

Colonel WILLIAMS. No, sir; when they finish there is about 6 percent recidivism, go get in some kind of trouble and go back and get on drugs.

Senator BUMPERS. Well, hell, the public education system cannot boast of that.

Colonel WILLIAMS. No, sir.

Senator STEVENS. Jake, how many people enlist from your program in Alaska?

General LESTENKOF. We are running today I think about 10 percent, and this is for the Active service and for the Reserve components, the Air Guard, Army Guard, and Reserve.

Senator STEVENS. But that is not really a total figure, because some of them might do what Mr. Sparra is doing and going on to college with the hope of going later. Didn't you say you wanted to go into the military?

Mr. SPARRA. Yes, sir; but right now I am also in the South Carolina State Guard.

Senator STEVENS. You are in the Guard already?

Mr. SPARRA. Yes, sir; I am enlisted.

General LESTENKOF. In Alaska we are running—about 93 percent of our graduates are in the service, or in jobs, or back in school, either college or back in their own high schools to finish, and so that is a pretty high rate.

Senator STEVENS. We ought to be able to track them to see how many after they go to high school or college end up in the military. I do think it is an excellent way to give young people an opportunity to see what the military is all about.

Do you have any other questions, Senator?

Senator BUMPERS. I do not. Thank you, Mr. Chairman.

Senator STEVENS. Well, let me tell you again, we are really grateful to you for coming.

Were you serious about wanting General Baca to come back up?

Senator BUMPERS. Yes; I just had one question.

Senator STEVENS. General Baca is always a volunteer. If you young people would stay, our photographer would like to get a photograph of you while you are here.

May I ask you, then, to go back to your seats and let General Baca come back forward.

Senator BUMPERS. My question, General Baca, is, I am again dismayed, dumbfounded, and really upset about the fact we are building hardly any National Guard armories. Benton, AR, has been on the list since before I was born. It is still not on the Pentagon's list for replacement, and as I understand it there are only four armories in the Guard budget, is that correct?

General BACA. Senator, I do not know the exact number, but I think that is about right. I can give you the number for the record.

[The information follows:]

DETAILS OF ARMORIES IN THE ARMY NATIONAL GUARD BUDGET

There are presently four armories and/or readiness centers scheduled for replacement or expansion in the fiscal year 1999 Budget. The locations are Gowen Field, Idaho, Bismarck, North Dakota, Powhatan, Virginia, and Camp Dawson (Kingwood), West Virginia. The armory at Benton, Arkansas, is in the Future Years Defense Plan for fiscal year 2002.

Senator BUMPERS. I am not going to go through all the statistics about how many armories we have and how many of them are in a sad state of repair or ought to be replaced, but how in the name

of all that is good can we keep going, not doing any better by the Guard armories than we are doing?

General BACA. Senator, I could not agree with you more. I think it is an issue that we need to address. We need the—armory is a misnomer, really. It is more now—it is a training facility for the units. The units need the adequate facilities to train.

I can tell you also, Senator, that as you know in your communities as a citizen, Senator, it is a center for the activity of all the citizenry, and we need to address the problem. I agree with what you are saying.

Senator BUMPERS. Well, I do not know whether this committee is going to undertake to add to the list or put any more money into the program.

You know, like everything else, I suppose we are up against budget caps just like everybody else is, but as I say, I just think this is penny-wise and pound-foolish, not to keep our infrastructure up for what I consider a very important element, and that is the Guard.

ADDITIONAL COMMITTEE QUESTIONS

Well, I had questions of the Air Force, the Guard Air Force too.

General BACA. Senator, we would be happy to provide you all your answers for the record.

Senator BUMPERS. We will submit several questions for the record, General Baca, and if you can get back to us at the earliest possible time, if you would share your answers with the other members of the committee.

[The following questions were not asked at the hearing, but were submitted to the Bureau for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO MAJ. GEN. PAUL A. WEAVER, JR.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

F-16

Question. There is a need to upgrade the aircraft being flown by the 119th Fighter Wing, now flying the F-16A. Are there plans to upgrade the 119th Fighter Wing to the F-16C?

Answer. There are various force structure options under discussion between the Air Staff and the Air National Guard staff. Some of those options do include upgrading the 119th Fighter Wing from the F-16A to the F-16C.

Question. What would be the ultimate result of such an upgrade, as to mission, number of aircraft, and cost?

Answer. The various options under consideration include leaving the unit in the Air Defense mission or converting to the General Purpose mission. The number of aircraft assigned to the unit and the cost, will be consistent with other units assigned to the same mission.

Question. Are there any F-16C's available for the 119th Fighter Wing or other Air National Guard Units in the foreseeable future?

Answer. The availability of F-16C aircraft is dependent upon the force structure options exercised by the Total Force. As the Air Force is currently not buying new F-16's, any F-16C's that flow to the 119th Fighter Wing and other units will come out of the existing force structure.

Question. Without an upgrade, how many hours are left on the present F-16A's
Answer. The age of the F-16A ranges from a low of approximately 2,500 hours to a high of approximately 4,250 hours. The fleet average age is approximately 3,768 hours. Remaining service life of these aircraft is difficult to determine, since hours alone is not a good measure. Current service life projections predict that the F-16A will be able to safely operate for several more years.

Question. Has the possibility of a "mid-life update" of F-16A's been explored?

Answer. Yes, the mid-life update program for the F-16A has been explored.

Question. What would the cost of this update be as compared to the purchase of new aircraft?

Answer. The cost of the mid-life update varies dependent upon the service life extension option selected. In general, the cost is approximately one-half the cost of a new aircraft, although the amortized cost is the same (approximately \$3.2 million/year). The main difference is that, at best, the mid-life update is a 16 year aircraft, while a new aircraft is a 32 year aircraft. These figures are based on using the aircraft at the rate of 250 hours per year.

Question. What capabilities would be lacking in such upgraded F-16A's as compared to F-16C's?

Answer. The mid-life update provides Block 50 compatible avionics. However, the airframe is still an F-16A airframe, with all of the associated weight limitations. Therefore, the limitations is not avionics, but airframe load bearing capacity.

Question. What are the drawbacks of this program as compared to the purchase of new aircraft for the active Air Force and the cascade of used F-16C's to the Air Guard?

Answer. If the F-16A was to have the mid-life update accomplished, the only aircraft modified in this configuration would be those in the Air National Guard (ANG). This provides some unique logistics issues that separate the ANG from the rest of the Total Force. Additional operational concerns would also have to be addressed in order to fully integrate these platforms with the Total Force. There are workaround solutions to both of these issues; however the optimum solution would be to migrate F-16C models to the ANG.

SUBCOMMITTEE RECESS

Senator BUMPERS. Thank you very much, Mr. Chairman. That is all I wanted to pillory General Baca about.

Senator STEVENS. Is he entitled to another Purple Heart? [Laughter.]

Thank you very much, gentlemen.

Senator BUMPERS. Unhappily, he agrees with me but cannot do anything about it.

Senator STEVENS. I guess he is ready for retirement. [Laughter.]

Thank you very much. We are going to be in recess until March 19, this Thursday, that is tomorrow, to hear testimony on intelligence programs for this subcommittee.

Thank you all very much.

[Whereupon, at 11:50 a.m., Wednesday, March 18, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

**DEPARTMENT OF DEFENSE APPROPRIATIONS
FOR FISCAL YEAR 1999**

WEDNESDAY, APRIL 1, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:09 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.
Present: Senators Stevens, Shelby, and Inouye.

DEPARTMENT OF DEFENSE

SURGEON GENERALS

**STATEMENT OF LT. GEN. RONALD R. BLANCK, SURGEON GENERAL,
U.S. ARMY**

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Gentlemen, we apologize. We had the markup session on the tobacco legislation, and we told them we had other medical problems over here to deal with so we could come over here. So, my friend and I are here and we are happy to have a chance to visit with you about the future of our health problems.

It is a pleasure once again to welcome you, General Blanck, as the Surgeon General; Vice Admiral Koenig, the Surgeon General of the Navy; and General Roadman as Surgeon General of the Air Force.

We have some very significant challenges in the Department of Defense and medical readiness is one of them. We do have to have the ability to care for the Active Force and to keep the commitments we have made to those who have been in the force. I hope that we will have the chance here to discuss a lot of the issues that we have tried to deal with in the past.

I am going to ask my colleague if he has a statement.

STATEMENT OF HON. DANIEL K. INOUE

Senator INOUE. Thank you very much. I would like to take this opportunity to acknowledge Vice Admiral Koenig. I believe this is the last time he will be appearing here. I wish to thank you for your enduring support over the past 4 years and wish you much success in future endeavors.

Mr. Chairman, I have had several opportunities to visit military medical facilities over the past several months, and I found care delivery to be excellent, which reinforces my belief that our mili-

tary health care is far superior than that of other countries. We provide high quality care because our service members and their families deserve the best.

One of the most important aspects of the high quality of military medicine is the access to care provided to our beneficiaries. Although the overall size of our military forces and number of treatment facilities has declined, the number of eligible beneficiaries has increased. This increase is due to two important factors.

First, the average family size of our junior enlisted members has increased. Statistics now show that approximately 65 percent of our forces now have family members eligible for health care.

The second factor I believe is the excellent retention which has increased the number of service members who remain on active duty through retirement.

During visits to my home State, many current and former members of the military frequently ask about the future of military health care and they express confusion and concern about the options available and why changes such as TRICARE were necessary. They are particularly apprehensive about the changes to the availability of quality services to their family members. I can say with confidence that the ready access to quality health care, wherever military members are living, is always of paramount concern to them.

Today, as we address many of the issues facing our military health system, I would like to focus on military medical readiness, provision of health care services to our beneficiaries, new technology initiatives, and the President's fiscal year 1999 budgetary request. So, I look forward to the testimony this morning.

I would like to join my chairman in welcoming General Blanck. He has been a good friend for many, many years. And also General Roadman. Welcome, sir.

I would like to also announce, in case you have not heard, the State of Hawaii and Tripler Medical Center has had a new addition, the highest ranking nurse to be Commander in Chief of the facility. So, congratulations to all of you. We finally crossed the border here. The next one is three stars. [Laughter.]

Senator STEVENS. Gentlemen, I have recently had some information from one of you that in the Washington, DC, area, because of the innovative way that we have handled consolidation of functions at military hospitals, we have actually been able to hold inflation in terms of the cost of the services you provide here down to approximately 1 percent, compared to the 7 to 12 percent of medical systems generally. You are to be congratulated. I hope other people are listening to what you are going to tell us because I think that reports are very good in terms of the innovative way and the approach to the job you have to provide better care and holding down the costs we have.

So, let me first start with you, General Blanck.

STATEMENT OF LT. GEN. RONALD R. BLANCK

General BLANCK. Thank you, Mr. Chairman, distinguished members. I appreciate the opportunity to appear with my colleagues.

I will keep my remarks brief and ask that my testimony, of course, in its entirety be part of the record.

The Army Medical Department, along with our sister services, is looking at how we can shape our total medical force as we prepare for all of the eventualities and as we respond to the ever-increasing need for health care, particularly of not only our active duty and family members but also our retirees and their family members of all ages.

We are shaping, Mr. Chairman and distinguished members, by such things as the consolidations that you referred to. Here in the National Capital area there have been functional consolidations between National Naval Medical Center and Walter Reed Army Medical Center, as well as Malcolm Grow Air Force Medical Center. We have combined most of our graduate education programs and actually have centers that do one specific thing at just one, not all, of those medical centers, so that we have avoided duplication.

The same thing is happening throughout this country, and I would also mention similar consolidation efforts in San Antonio between Wilford Hall Air Force Medical Center and Brooke Army Medical Center. This is one example, at least, of how we are managing to continue to provide ever-increasing quality of care with much more accessible care, making it more accessible and at the same time holding costs down to a minimum. It is care of value and I think of great value to this Nation.

We do have serious problems within the shaping, particularly in our Reserve components where, for the Army at least, I have serious shortages in physicians, dental officers, and physicians' assistants. Some of those problems are occurring in the Active Force, but far less so. The Reserve force is of great concern to me, and we have certain initiatives in place to improve recruitment and increase retention.

We have, as noted, moved to corps in material commands with General Adams taking the command of Tripler Army Medical Center. This first 99 command board that considered all corps will be announced shortly and I suspect there will be members of the Nurse Corps and the Medical Service Corps as well as the Medical Corps on that list.

Finally, we are also shaping with innovative technologies, a variety of kinds of information technologies. Telemedicine in particular has played a key role and we are doing that through the AKAMAI project with Hawaii and Alaska and using it many, many places including today in Bosnia and in Kuwait, Bahrain, the whole gulf area.

We are preparing our force for all the eventualities in a variety of ways. We are applying the protection of anthrax vaccine, and those immunizations are going on as we speak, all captured in an immunization tracking system so we know who got them.

We are preparing with such evacuation platforms as the UH-60Q, and I appreciate the support that you individually and this committee have provided to let us have our first eight of these evacuation platforms.

Of course, we are into health promotion through not only all of the education programs but such technologies as the electron beam computerized tomography that you have been very supportive in and that we now have at Walter Reed and some other places with-

in the system. Of course, we are moving to develop the generation after that—the volume angio-CT.

We have the chemical/biologic response teams standing up at our medical centers, and we really are trying to look at all of the kinds of scenarios to which we might be called upon to respond.

Response. We are doing that in Bosnia. We are doing it in the gulf. We are doing it with partnering with such groups as the Center of Excellence in disaster management and humanitarian assistance, in Honolulu with the university there.

We are implementing TRICARE throughout, and as of the end of this spring, May 1, we will actually have contracts in all of the areas in TRICARE, the last being the Northeast, here in the National Capital area up through Maine.

Part of this responding is, of course, to try to provide better access to care to those retirees and family members 65 and over through Medicare subvention, through other initiatives of partnering with Medicare health maintenance organizations. We are working closely with not only you, but with our constituency organizations, our beneficiary organizations, to try to come up with innovative ways to provide that care.

PREPARED STATEMENT

I look forward to your questions, and again thank you for the opportunity to appear before you.

Senator STEVENS. Yes, sir.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. RONALD R. BLANCK

INTRODUCTION

Mr. Chairman and members of the Committee, I am Lieutenant General Ronald R. Blanck, The Army Surgeon General. It is a privilege for me to address this committee. This morning I would like to provide you with a picture of the Army Medical Department. Through this picture you will see an Army Medical Department fully integrated not only on any future field of battle, but in garrison as well, taking care of all our soldiers, retired and active—and their family members. I will provide this picture in the context of the three Army Imperatives—Shaping the Force, Preparing the Force, and Responding to the Needs of our Army and the Nation. In so doing, I will highlight the issues and challenges that Army Medicine faces today and into the future. Next, as I know this is an area of intense concern for the Committee, I will focus some comments on current issues in telemedicine and TRICARE and its ongoing implementation. Further, I will highlight areas where the Army Medical Department is working in close cooperation with our sister service medical departments to gain efficiencies. Finally, I will take a few moments to complete the picture by sharing with you some “Good News” stories from within the Command. At the conclusion of my testimony, I believe you will agree, today’s Army Medical Department is more flexible and better prepared to meet all our diverse missions than ever before. I thank you for your continued support of our efforts to provide the finest quality of medical support to America’s Army.

CURRENT STATUS OF THE ARMY MEDICAL DEPARTMENT

The Army Medical Department continues to respond with creativity and energy to the challenges of health care in a rapidly changing environment. Since the end of the Cold War, the Army Medical Department has reduced by about 20 percent in officers and about 40 percent in enlisted soldiers. In 1990, we had 168 field hospitals—active and reserve—that number has dropped to 52 and will continue to fall. In the same timeframe, the Army Medical Department began with 10 Medical Centers and 28 Medical Department Activities—Community Hospitals—our inpatient facilities, and has reduced to 8 Medical Centers, 18 Community Hospitals, and a host of large outpatient Medical Clinics.

Even as we reduce our numbers, we are deploying all over the world more than we have in recent years. These deployments are not typically for combat, but rather for humanitarian assistance and stability and support operations. Medical personnel are finding that on these missions they are typically providing preventive medicine expertise and disease and environmental surveillance. All the while, we must maintain day-to-day health care for soldiers, retired soldiers and their families.

Army leadership has articulated three imperatives as we approach the challenges of the 21st Century. We in the medical department must align ourselves with the rest of the Army to shape our forces to meet the needs of a changing world; we must also prepare our forces by staffing, equipping and training them to successfully complete all missions they may be called upon to perform; and we must respond to the needs of the Army and the Nation. Let's look at the Army Medical Department's current priorities, as they relate to these imperatives:

Shape

Drawdown.—The Army Medical Department has been a full participant in the drawdown of the total Army Force. Reductions of 37.6 percent in the active Army Force have been mirrored by a drawdown of 34 percent in the Medical Department's military strength. We will continue to shape our force utilizing all of the Congressionally provided tools, striving to meet the allocated military endstrength in fiscal year 1999. These tools (Expanded Selective Early Retirement Authority, the Variable Separation Incentive Programs and the Variable Early Release and Retirement Program) have been applied selectively to the various competitive categories which comprise the Army Medical Department. The overriding consideration during this entire period has been to insure the correct specialty mix has been maintained to sustain the readiness of the Army Medical Department to accomplish its multifaceted mission.

Leadership Development Opportunity.—Historically, senior leadership positions and commands within the Army Medical Department (AMEDD) have been corps specific. As an example, Medical Treatment Facilities have been commanded by officers of the Medical Corps (MC) and non-deployed TOE medical units have been commanded by Medical Service Corps (MS) officers. Dental and Veterinary units have been commanded by Dental Corps and Veterinary Corps Officers respectively. As a result there have been few corps immaterial senior leadership or command opportunities for AMEDD officers. This policy has limited the AMEDD's ability to select the best-qualified officer for senior leadership positions.

In January 1997 the Secretary of the Army approved the Surgeon General's request to change Army regulations which had restricted command of Medical Treatment Facilities. In general veterinary, dental, aviation, garrison and logistics commands will remain corps specific. Virtually all other commands will be AMEDD corps immaterial. The implementation of corps immaterial commands within the AMEDD will be phased in over the next few years. The fiscal year 1998 DA Command Designated Position List (CDPL) selection boards held in November 1997 for Lieutenant Colonel and January 1998 for Colonel was the first opportunity for AMEDD officers to compete for commands designated corps immaterial. Results of these boards are expected to be released in April/May 1998 for commands opening in the Summer of 1999. In addition, the Army Medical Department has identified and opened appropriate non-command senior leadership positions to the best-qualified officers of each AMEDD Corps.

Reserve Component Staffing.—The Army depends heavily on its Reserve Component for medical support. About 70 percent of the Army's medical forces are in the Army Reserve—representing approximately 273 medical units. Several efforts over the past several years have improved some aspects of reserve readiness. For example, Medical Command and Reserve Command signed a Memorandum of Understanding that allowed closer interaction and support between reserve and active duty assets. Medical Command has also established Regional Medical Commands that are responsible for active/reserve integration in their respective geographical areas.

Although these efforts have been successful in meeting their major objectives, we continue to have serious problems in other areas, most notably acute shortages of physicians and dentists in many reserve units. With a loss rate higher than our gains every year since Desert Storm, the current recruiting incentives are obviously not meeting the objectives of the force.

It is a very complex set of challenges but we have already begun working on the following partial remedies: (1) increased emphasis with Recruiting Command on manpower needs, and (2) individualized efforts to convince physicians and dentists leaving active duty to join reserve units.

Neither of these efforts alone will solve the problem, but if we do a good job in both areas, along with on-going restructuring, we can make significant inroads in eliminating the shortages.

Dental Officer Shortages.—We continue to have concern regarding the recruitment and retention of dental officers in the Army Dental Corps. Our budgeted end strength for dental officers is 1,169, and on the 31st of January 1998 this year, we had 1,018 in the Dental Corps, indicating that we are 13 percent understrength. We have not been able to meet our accession goals for the past 13 years. Additionally, the Dental Corps is an aging force. As of February 23, 1998, 17 percent of Dental Corps officers are retirement eligible and an additional 43 percent of current Dental Corps officers will be retirement eligible within 5 years.

In response to this, Congress enacted a pay increase for both junior and senior officers, and an accession bonus and loan repayment program to enhance the recruiting of new officers. The National Defense Authorization Act of 1998 also provides for a Multiyear Retention Bonus for all specialists.

We are working to maintain the number of Health Professions Scholarship Program scholarships in dentistry and to obtain funding for specialists under the Multiyear Retention Bonus. We will continue to work in this area and monitor progress.

Physician Assistant Shortages.—Since 1992, the number of Physician Assistants leaving the Army has exceeded the number of accessions. This has resulted in insufficient numbers of Army Physician Assistants, hindering the provision of Army healthcare. There are a number of reasons for this problem and we are looking at several potential solutions. The solutions range from loan repayment for Physician Assistant School and recruitment bonuses to expanding the Green to Gold program and increasing the number of Physician Assistant Training seats. This problem is receiving a great deal of attention and I am confident we will overcome this critical shortage.

Consolidate Regions.—The Army Medical Department needs to align its organizations better in two ways. First, we will position ourselves around the deployable corps—XVIII Airborne Corps, III Corps and I Corps—by really focusing on the needs of each of the warfighting Commanders in Chief. Also, we need to align ourselves and link ourselves better with TRICARE lead agents. They are increasingly important organizations for coordinating health care throughout the Army, Navy and Air Force, and to a certain extent the Public Health Service, in order to oversee managed-care support contracts.

The Southwest Regional Medical Command consolidated with Great Plains Regional Medical Command last fall. The expanded Great Plains Regional Medical Command supports III Corps, and will focus on Southern Command. The Pacific Regional Medical Command and the Western Regional Medical Command have signed a Memorandum of Understanding defining their peacetime/wartime support of I Corps and Pacific Command, particularly with regard to crossed lines of authority in Alaska. The North Atlantic Regional Medical Command and the Southeast Regional Medical Command are developing a Memorandum of Understanding as to how they will both support 18th Airborne Corps and share resources. Southeast Regional Medical Command will focus on Central Command and North Atlantic Regional Medical Command will align with the Europe Regional Medical Command to focus on European Command. These alignments should clarify regional responsibility and facilitate and improve habitual training and support relationships.

Integration of Field Units into Fixed Facilities.—The Army needs a certain number of rapidly deployable field hospitals that are fully staffed—except for professional fillers—and able to deploy within 10 days. Other deployable hospitals, however, may be given “Caretaker” status, with most personnel working day-to-day at fixed military hospitals. This helps maintain clinical skills and makes the best use of personnel to meet the daily demand for health care. Each Caretaker Hospital, with the staff working in the fixed facility, provides approximately \$24 million worth of health care per year and is able to deploy in 10 and 30 days. Reserve personnel will mobilize to staff the fixed hospital when its active personnel deploy with their Caretaker Hospital. TRICARE support contracts also provide for increasing the level of care/number of providers available during mobilization.

Army Medical Command/Office of the Surgeon General One Staff.—Last year we reduced duplication between the U.S. Army Medical Command Headquarters staff located mainly in San Antonio, Texas, and the Office of the Surgeon General staff located in the National Capital Area. This was not a downsizing exercise but a measure to improve performance by further flattening the organization and reducing duplication. It follows the dual-hatting of the Surgeon General as Commander of the U.S. Army Medical Command. The Deputy Surgeon General became the U.S. Army Medical Command’s Chief of Staff. Three brigadier generals serve as Assist-

ant Surgeons General in addition to having functional areas of responsibility within the Medical Command. Modern communication technology allows leaders in one location to communicate efficiently with their staff in another location.

Medical Reengineering Initiative.—The Medical Reengineering Initiative is the outcome of a process that examined the ten functional areas of Combat Health Support to ensure their relevance to future operations. It provides for a single, modular hospital and better command and control, with treatment teams and streamlined support elements. Potential manpower reductions generated as a result of MRI will be garnered as savings under the Quadrennial Defense Review (QDR) and the Total Army Analysis Processes.

The Army Medical Department is an integral part of the Army, and as the Army reduces, so must its medical support. As a result of the QDR decision to reduce the Army from 495,000 to 480,000, the MEDCOM will be reducing by about 800 military spaces. Some of this directed reduction will impact on health care providers and ancillary support. Although it is still assessing how best to execute its share of the QDR decrement, MEDCOM intends to premise its reduction on changes in workload and population served as much as possible. Critical to this analysis will be the protection of MEDCOM's core competency as a readiness focused health care enterprise.

Army Medical Department Information Reengineering.—A special study group called Task Force Mercury analyzed information management and information technology in the Army Medical Department, in order to best harness this critical resource. They delivered 27 recommendations for business-process changes pertaining to doctrine, training, leader development, organization, materiel and soldiers. Outcomes and efficiencies realized through these efforts include consolidation of seven organizations into one organization accountable for acquisition and support of information products, elimination of duplication across the organizations, and improved delineation of roles and responsibilities. Additionally, we are leveraging existing staff to address information requirements for both fixed and field operations. Customer support is now deployed far forward. Training of information management skills is now incorporated throughout all Army Medical Department curricula. A process for prioritization of business requirements has been established which will ultimately improve mechanisms for prioritization of corporate investments in information technology. These and other business process changes are anticipated to significantly improve the Army Medical Department's ability to exploit information and information technology across the full spectrum of operations.

Reinvention.—As evidence of the Army Medical Department's commitment to reshape and reinvent itself, the U.S. Army Medical Command requested and obtained designation as a Reinvention Center. Reinvention Centers and Laboratories are designated to lead the way and set the pace of change by experimenting with new processes and new ways of doing business. Although the Army Medical Department has been leading change for years, this designation affirms our commitment to innovation and making smart business decisions. In addition to the command's designation as a Reinvention Center, five subordinate units have been designated as reinvention laboratories (the U.S. Army Health Care System Support Activity, U.S. Army Medical Research and Materiel Command, U.S. Army Center for Health Promotion and Prevention Medicine, the U.S. Army Medical Department Activity at Fort Knox, Kentucky, and the U.S. Army Dental Command).

Prepare

Readiness Training.—Phased implementation of new standards to train all medical soldiers for combat support began October 1. These are not intended to revolutionize the substance of training, but rather to ensure wider understanding of requirements and greater consistency in implementation. The eight requirements are survival skills, weapons training—for selected personnel—collective training, competency-based orientation, Deployable Medical Systems training, job-specific medical training, job-specific readiness training and a briefing on Medical Force Doctrine. A database in the Medical Occupational Data System will track these requirements.

Battlefield Evacuation.—Of critical importance to me is evacuating wounded soldiers from the battlefield to medical treatment facilities. Several initiatives, if successfully implemented, will upgrade our capabilities for this vital mission:

The Air Force has agreed to support evacuation from forward hospitals to the rear, using C-130 transport aircraft as High Capacity Air Ambulances. Joint doctrine has been developed and will be included as a chapter in Field Manual 8-10-6.

In fiscal year 1996 and fiscal year 1997, Congress funded the modification of eight UH-60's to the UH-60Q air ambulance configuration. The cost of this modification is \$2 million per airframe and allows for sophisticated medical treatment during

evacuation. The UH-60Q provides advanced trauma management, enhanced navigation, communication and digitization on the battlefield. This enhancement gives the pilot situational awareness of his location and the enemies, and the capability to obtain and forward patient status information, beyond vital signs, to the receiving medical unit.

The Army POM has program funding for procurement of 117 UH-60Q's to begin in fiscal year 2002 in support of our Force Package 1 requirements. The Army procurement plan continues well into the out years until all UH60Q's have been procured through Force Package IV, giving the Army a total of 357 UH-60Q's for battlefield evacuation.

Until funding is available to purchase the remaining UH-60Q's, the Army is required to procure medical conversion kits necessary to convert the standard UH-60A to a UH-60A aeromedical evacuation platform. Although the conversion kit does not provide the sophisticated medical evacuation capabilities of the UH-60Q, it does satisfy the interim requirement to provide for patient evacuation on the battlefield.

A prototype of the new Armored Medical Treatment Vehicle performed magnificently during the Advanced Warfighting Experiment at Fort Irwin, CA, last spring. The Training and Doctrine Command has validated the Armored Medical Treatment Vehicle requirement. We are working on a plan that would allow us to begin procurement of the Armored Medical Treatment Vehicle beginning in fiscal year 2000.

TDA Specialty Response Teams.—When Korean Air Flight 801 crashed in Guam last August, Tripler Army Medical Center had a critical care team in the air within hours to assist the Navy hospital in Guam. Shortly after, the Institute of Surgical Research at Brooke Army Medical Center had two teams of burn specialists flying to the site to provide care to casualties. We intend to form similar teams with special skills in trauma/critical care, chemical and biological casualties, stress management, telemedicine, and preventive medicine and disease surveillance. The teams will give us the capability to get two to four highly skilled care providers to a remote site rapidly, while larger support forces are mobilizing. These teams, primarily based in the Continental United States, are designed to respond to regional needs, often civilian, and are not designed to replace field units.

Technology.—We are enthusiastically incorporating advanced technology into the way we provide world-class care to our patients. I will defer my comments on technology and telemedicine here so that I may focus more on it in a few moments.

Soldier Medical Readiness.—The Medical Protection System, a medical Occupational Data System application, has been identified as the system to record, report and archive soldier and unit readiness. Implementation of the system is ongoing with immunization tracking being the first module to be completed.

Respond

This last imperative is where the medical department differs somewhat from the Army's line units, for we must not only respond to the call to battle in far-off lands, but we must also respond to the daily demand for high-quality, cost-efficient health care for soldiers, families and retirees.

Operation Joint Guard.—Army medical personnel are doing a magnificent job in Bosnia and Hungary supporting Operation Joint Guard. Their good work and aggressive health promotion have resulted in low rates of illness and injury. One particularly creative approach was the production of decks of playing cards that also contain tips to help troops avoid cold injuries, rodent and tick-borne diseases, and other preventable illnesses and injuries.

Also in place in Bosnia, the U.S. Army Center operates a highly successful disease surveillance program for Health Promotion and Preventive Medicine. The ability to collect and analyze, in theater, information on disease and injury occurrence will permit early identification of threats to the health of the force and enable the timely use of preventive measures.

We are learning how to use telemedicine more effectively. While visiting a Battalion Aid Station in Bosnia, I was impressed to see a physician assistant speak to an emergency room physician in Landstuhl, Germany, using a satellite connection. It was simple, relatively inexpensive, portable and effective.

TRICARE.—TRICARE is the Department of Defense response to the Congressional mandate to develop a health care delivery system using the concepts of managed care while maintaining readiness, containing costs, and improving access to health care. TRICARE is an umbrella program bringing together the capabilities of the individual military Services, CHAMPUS, and civilian contractor preferred provider networks. I will speak much more about TRICARE in a few minutes.

Health Promotion.—One of the tenets of Managed Care directs that care is provided by the most medically appropriate, qualified provider to each patient at the

right time and at the right place. In an ideal, efficient managed-care program, the appropriate level of care may well be lifestyle counseling and behavior modification to keep the beneficiary healthy to begin with, rather than waiting to cure an illness that could have been avoided. Again, I will focus more on this issue later.

Ambulatory Data System.—This new automation system captures diagnosis and procedure information on outpatient visits. The capturing of this more detailed clinical information is critical for decision making and to support our new costing methodology.

Clinical Pathway Implementation.—Variation is the enemy of quality. Clinical practice guidelines and clinical pathways are road maps used to reduce unwanted variation and to maximize the quality of care rendered. The use of clinical practice guidelines, the adaptation of locally specific clinical pathways, and the sharing of information will enable us to achieve our overall goals of improving clinical outcomes, conserving resources, and improving patient satisfaction.

A database has been developed to track clinical pathways at Army Medical Treatment Facilities. Our Medical Treatment Facilities are now using 103 more clinical pathways than they were a year ago.

More information about the issues discussed here can be reached through our new Army Medicine Web Site: <http://www.armymedicine.army.mil>.

We have to learn to manage change to our greatest advantage. The best way we can manage constant change is to be intellectually flexible while retaining an unchanging set of core values and functions.

The core values of the Army Medical Department are: Loyalty, Duty, Respect, Selfless-service, Honor, Integrity, Personal Courage, Commitment, Competency, Candor, and Compassion with absolute patient focus. Our three core functions are: Project a Healthy and Protected Force; deploy the Medical Force; and manage the Health Care of the Soldier, the Soldier's Family, and the Military Alumni Family.

If we can keep these values and functions as nonnegotiable guidelines, we will be able to adapt to the changes on the horizon. As long as we use our core values to guide changes to our core functions, we will be a wiser and more efficient organization than we have ever been in our 222-year history.

TELEMEDICINE

This morning I would like to outline to you the overall vision and goals of telemedicine, the lessons we have learned from our experiences, the present status of Army Telemedicine in the field and in our military training facilities, and the leading edge research in this area.

Telemedicine and the Goals of Telemedicine.—Telemedicine is the use of information management and technologies to provide healthcare across time and distance. The technologies involve the use of telecommunications that pass the information from one health care delivery site to another or between a clinician and a patient. Telemedicine information can be transmitted by telephone, faxes, videoteleconferencing (VTC), or personal computers using various forms of telecommunications including the Internet.

The goals of telemedicine are to improve the efficiency of the delivery of health care, improve access, improve the quality of care, and reduce costs. The recipients of the benefits of these telemedicine efforts are the active duty forces, their dependents, and the retirees.

Lessons Learned in Telemedicine.—The military has accrued experience in telemedicine both in the field and in the military treatment facilities. Some of the early uses of telemedicine included high-end videoteleconferencing (VTC) equipment with the use of high bandwidth. Often the equipment was very bulky, difficult to use by the average health care provider, very expensive, and difficult to implement in the day to day routine of a provider. The past several years have shown significant improvements in telemedicine technologies, such that VTC equipment can run at the desktop, is easier to use, is less expensive, and effective applications can be implemented without the necessity of the high bandwidth.

Although real time video teleconferencing is sometimes necessary to make diagnoses, a great deal of telemedicine in the Army today is being done by store-and-forward technology. Store-and-forward is the capture of still images or video clips as digital files and transmission of these files. Transmission can be via the internet, telephone lines or by satellite. Relatively low transmission rates can be employed effectively with the store-and-forward approach. The store-and-forward approach allows for the use of easy to use equipment (PC and video camera) which is readily available at minimal cost. The use of this simple technology is illustrated in various places in the Army in our deployed units, such as in Bosnia, and in the fixed military facilities. Walter Reed Army Medical Center and Tripler Army Medical Center

have used web based store-and-forward technology to perform teledermatology in a wide area network with considerable success and have produced improvements in health care delivery.

The United States Army continues to be a leader in the deployment of operational telemedicine programs at fixed military treatment facilities. There are at least 54 operational telemedicine programs in our six regional Army medical commands. The majority of the telemedicine applications are associated with teleradiology, telepathology, teledermatology, and telepsychiatry. Telemedicine applications that fit well into the daily routine of a health care provider and produce an improvement in the healthcare delivery process will have great potential to be accepted by the provider. Teleradiology and telepathology are excellent examples. Teleradiology leverages the technology to improve access, to improve the turnaround time to make a diagnosis and thus improve quality and reduce cost. In Europe, the introduction of teleradiology reduced the average read time from two weeks to several days with an improvement in diagnosis. The Armed Forces Institute of Pathology has been conducting telepathology for the past several years. Last year pathologists there read 325 cases with average turnaround time of 24 hours from overseas and 4 hours within the United States.

Home healthcare is being supported by telemedicine in the South East Regional Medical Command. This service is being provided to patients who have severe heart failure and lung disease. Telemedicine allows them to have easier and more effective interactions with their health care providers without traveling to the hospital. In our Great Plains Region, abnormal physiological monitor tracings of neonates in the intensive care unit in the Army Hospital at Ft. Hood (Darnall) are transmitted electronically to Brooke Army Medical Center. This capability ensures timely care and intervention for sick neonates.

The AMEDD is also a leader in telemedicine research. The Personal Information Carrier (PIC) will enable medical data to be stored and transported with the patient. A soldier's medical history and predeployment medical status will be recorded on the PIC. Medical interventions in theater will be recorded on the PIC and will be available to other health care personnel when the soldier receives care at other locations. The information will be able to be read and written to by computer systems where the patient receives care and the data will be made available for medical surveillance and analysis. The AMEDD is working with the other services to develop the PIC and deploy it in the near future. The PIC will eventually be used to capture any of the data in the computerized medical record, to include digital images, plus information on occupational exposure and the location of the soldier.

The AMEDD is also conducting research on the warfighter physiological status monitor, a potential subsystem of the Force 21 Land Warrior. A lightweight, modular device (wrist mounted unit) with physiological sensors and processors will provide dynamic assessment of the soldier's medical status. Real time data about the soldier's level of fatigue, stress, and sleep deprivation will be captured. Immediate casualty notification upon detection of trauma, and incapacitation, will be transmitted to first responders. This capability will assist in the far-forward, first responder medic's triage of injured soldiers.

The military has continued to be the leader in telemedicine and is working closely with the civilian health care organizations to share our knowledge and experience with them. We will continue to invest in the development and deployment of cost effective telemedicine capabilities.

TRICARE

This morning I would like to provide you with the Army Medical Department's assessment of the TRICARE program. My overview will address how the TRICARE program supports the Army Medical Department's strategic goal of managing the health care given to our soldiers, their family members and our extended military alumni family. Through this overview you will receive an assessment of the progress occurring with the implementation of the TRICARE program, the challenges actively being worked, and the efforts ongoing to ensure the long-term success of the TRICARE program.

As I present my comments please consider that the TRICARE program is a significant paradigm shift from how the Army Medical Department conducted business just a few years ago. For the TRICARE program to fully succeed every beneficiary must know how to access health care in this new managed care environment. Furthermore, every member of the Army Medical Department must understand their specific role so that cost effective quality care is provided at all time.

As managed care continues to evolve in the private sector, we too are constantly working toward improving the Department of Defense managed care program,

known as TRICARE. I anticipate we shall not see the full benefit of this program, both in terms of producing healthier military beneficiaries and generating further cost savings to our taxpayers, until this program is allowed to mature over the next several years.

In 1994, an ambitious schedule was embarked on to stand up, nation wide, seven managed care support contracts in a span of four years. The Army Medical Department was given the honor of being the first Lead Agent to oversee the operation of a regional civilian managed care support contract. The first contract became operational in the delivery of health care services by March 1995. This occurred in the Northwestern United States. This first hand experience resulted in the development of over a hundred lessons learned, several of which were incorporated into the managed care support contracts that followed.

Since the first contract, four separate managed care support contracts became operational within a two-year time frame. Again, the Army Medical Department, represented by three Lead Agents, is playing an integral role to the success of these contracts. The last two remaining contracts are scheduled to become operational in the Ohio Valley, the Northeast and the Mid Atlantic States in the near future, pending resolution of the ongoing protests. I anticipate that once these contracts are implemented across the nation, the understanding and acceptance of managed care principles by our military beneficiaries will improve.

While the full impact of the TRICARE program is not yet realized, positive accomplishments are occurring in the Army Medical Department's military treatment facilities.

Health Promotion

One such achievement is the emphasis the TRICARE program places on health promotion.

The Army Medical Department is aggressively pushing real health promotion and preventive measures such as education, behavior changes, and early disease detection. The U.S. Army Center for Health Promotion and Preventive Medicine has developed a plan to implement a structured and consistent health promotion program, integrated with TRICARE, throughout the Medical Command.

While investment in health promotion efforts are difficult to measure, five or ten years from now, there will be a payback in terms not only of resources saved, but more importantly, in terms of healthier patients who are more productive.

Utilization Management

The TRICARE program also places added emphasis on Utilization Management. This is another area of improvement for the Army Medical Department. Utilization Management assists us in ensuring that the appropriate amount of required medical interventions are provided without sacrificing the quality of that care. As resources decline, we must strive to minimize the provision of unneeded or inappropriate medical services. Since 1994, we have accomplished decreases in both our admission and bed day rates. While continued improvement in this area is needed, these changes have allowed several of our facilities to redirect their freed up resources to other needed health care services.

The focus on Utilization Management is becoming so wide spread that it has even reached areas in the Northeast that have not yet implemented the TRICARE program. The North Atlantic Regional Medical Command, which represents thirteen medical treatment facilities in the Mid Atlantic and Northeast, reported for fiscal year 1997 decreases in Bed Day and Disposition rates of 20 percent and 21 percent respectively. At the same time they moved out with numerous new initiatives in such areas as, demand management, disease management, and outpatient levels of care. Specific initiatives include new, Advice Nurse Services; Health Promotion and Wellness Centers; formal discharge planning programs; disease-specific patient education programs, to name a few.

The efforts in Utilization Management allowed the military treatment facilities in the North Atlantic Regional Medical Command to either consolidate or close twenty-one unneeded patient care areas. This Regional Medical Command is now focusing its attention on ensuring all memorandums of agreement between the new managed care support contractor and the individual military treatment facilities compliment the utilization management efforts already ongoing.

Performance Measurement

With the TRICARE Program came the need for a more structured approach to measure the performance of our military treatment facilities. To meet this need, the Office of the Assistant Secretary of Defense for Health Affairs developed the Military Health System Performance report card. This report card strives to mirror the Health Plan Employer Data and Information Set that is used by private sector em-

ployers to measure the performance of their commercial health plans. The Military Health System Performance report card is a standardized instrument, which examines five areas. These are access, quality, utilization, health behavior and health status. The Military Health System Performance report card results are derived from patient surveys and from automated data collection systems.

The Military Health System Performance report card is a valuable tool that allows the Army Medical Department leadership to see how well our military treatment facilities are performing in meeting the needs of our beneficiary population. This standardized information is critical as it provides my commanders the ability to identify weaknesses that require corrective action. The outcome from these corrective actions is improvement in the delivery of health care to our beneficiaries.

Recent surveys indicate that while there is gradual improvement across the Army Medical Department's military treatment facilities, continued work is still needed in specific areas. Customer satisfaction, in particular, is and will continue to be one of my priorities. It is important to provide quality care, which we do, but it is just as important that our customers perceive that they are receiving high-quality and compassionate care. While the TRICARE program has experienced some start-up glitches available survey data show it is working. Beneficiary satisfaction surveys show a large majority of customers are satisfied in those regions where the TRICARE program is already implemented. Department of Defense surveys show that almost 9 out of every 10 TRICARE enrollees will reenroll when the time comes. Despite this good news, there is much more work to do. While customer satisfaction with Army military treatment facilities improves, additional work must occur to raise the satisfaction levels for every beneficiary served.

Hospitality Training

Another initiative under development is a plan to implement hospitality training throughout the Army Medical Command. The intent of this initiative is to improve the customer relation skills of all health care and administration staff throughout the Army Medical Department. This skill is critical due to the financial incentives inherent in enrollment based capitation funding that our military treatment facilities are operating under. Exceptional customer service will result in satisfied beneficiaries who will be more inclined to enroll in the TRICARE program at our military treatment facilities. Along with each enrollment come the funds to keep that "customer" healthy.

Access to Care

With the TRICARE Program came, for the first time, system wide access standards to military health care. While these standards specifically apply to TRICARE Prime enrollees, all Army military treatment facilities are striving to meet these standards for every beneficiary they see.

Access to military health care has historically been a problem area for the Army Medical Department. Beneficiary satisfaction surveys show that over 70 percent of those surveyed are satisfied with their access to appointments and appointment waiting time in our military treatment facilities. Still this means a sizable number of our beneficiaries are not satisfied with their level of access to care.

To improve these access problems several Army military treatment facilities have completed or are pursuing restructuring initiatives. The goal of these initiatives is to improve their capability to receive primary care patients by increasing their primary care access portals. Darnall Army Community Hospital at Fort Hood, Texas, which historically receives low ratings in access, is one such example of a facility that restructured its primary care delivery system. We are now beginning to see positive results from these initiatives.

The Army is also aggressively working to improve access to tertiary health care services.

TRICARE Provider Networks

The TRICARE program has improved beneficiary access in another important way. With the downsizing of the direct care system our overall capabilities have diminished. Despite this fact, we are able to offer our TRICARE enrollees the full spectrum of health care covered under the TRICARE benefit. The reason we can provide this benefit is because of our managed care support contractors' provider networks. These provider networks augment the capabilities in our military treatment facilities and give our beneficiaries the access to care they need, when they need it.

The leadership within our Lead Agents and military treatment facilities know the health care needs of their beneficiaries and their capabilities to meet that need within their direct care facilities. In cooperation with the respective managed care support contractors the demand for services that cannot be met within our military

facilities is provided to them. They use this information to determine the size and composition of their provider networks.

TRICARE Challenges

Despite the benefits the TRICARE program offers to our beneficiaries, there are still challenges that must be met and conquered. As I mentioned in my introduction, the TRICARE program is an evolving program that was implemented on a very aggressive timeline. Because of the speed with which the TRICARE program was implemented there are misunderstandings with the intent of the program and how it operates.

Program Education

One of the most significant challenges the Army Medical Department faces is educating all our customers, both internal and external on the TRICARE program. Our customers need to understand this program was developed to retain their choice of benefit plan, whether it be TRICARE Prime, Extra, or Standard and to also minimize their out-of-pocket costs.

Some see the TRICARE program simply as the erosion of their military health care benefits. Those who believe this fail to see the true goal of the program. These skeptics fail to realize the larger out of pocket costs our beneficiaries would now be experiencing if TRICARE never came into being.

Under such a scenario, many would find themselves with limited or no access to our remaining military treatment facilities. Their only option would be for them to use the traditional indemnity plan, known as CHAMPUS. While this option gives them greater freedom of choice, that choice would come at a far greater out of pocket cost than offered under TRICARE Prime and would not allow for significant consumer advantages available under TRICARE PRIME such as enhanced access, health and wellness benefits, and professional medical oversight by a personal Primary Care Manager.

Educating all customers of the benefits of the TRICARE program is paramount to its success. The education effort must be three pronged to be effective. Our educational efforts must focus on all beneficiaries, the Army leadership, and everyone working within the Army Medical Department.

Helping beneficiaries understand how TRICARE changes their health-care system is one of our priorities. The Army Medical Department is actively marketing TRICARE and working with Major Army Commands, as well as beneficiary organizations, to make sure that we are providing accurate information about TRICARE. We are incorporating TRICARE information classes into training school curriculum where appropriate. Videotapes, displays, pamphlets and briefings are also being presented.

Our beneficiaries must understand that we aren't limiting their ability to access care, but expanding the choices available to them. If continuity of care and cost is paramount to them, then enrolling in TRICARE Prime in most cases is their best option. Those beneficiaries who want greater freedom of choice than TRICARE Prime, but still are somewhat concerned with costs, might be more satisfied with the TRICARE Extra option. If freedom of choice is their major determinant, regardless of the cost, then TRICARE Standard is the option they should choose.

The Army leadership must continue to work with the Army Medical Department in getting the message out about the TRICARE program to all the troops, their families, and our retirees. Waiting until a beneficiary takes ill and needs medical attention to learn about the program is too late. That is like asking a Battalion Commander to go into battle without an operations order. Both situations are probably doomed to failure.

Last, each and every individual, civilian and military, working in our military treatment facilities must fully understand the TRICARE program. These individuals are our ambassadors for the program. These individuals are closest to our patients and beneficiaries and can provide them with the needed advice to make an informed choice about which TRICARE option can best meet their specific healthcare needs.

My staff is redoubling its efforts, in cooperation with the assistance of the Office of the Assistant Secretary of Defense, to ensure all our "customers" are well informed about the TRICARE program.

Command and Control of Managed Care Support Contractors

The TRICARE program brings with it unique challenges in command and control of the managed care support contractors. Within the Army Medical Department, command and control remains strong, while the process with the managed care support contractor is less direct. Designated contract officers are the direct link to our managed care support contractors. To accomplish changes within the managed care support contracts my staff must diligently work through their respective Depart-

ment of Defense Lead Agent. This situation can reduce the responsiveness of needed corrective actions.

To offset this situation my staff and regional medical commands are developing closer ties with their respective lead agents to ensure issues requiring immediate action are taken without delay.

Enrollment

Accounting for TRICARE Prime enrollments, to include active duty personnel, takes on added financial importance in future years. In fiscal year 1999, the Prime enrollment numbers reported in the Defense Eligibility Enrollment System will be used for the distribution of Direct Health Program funds to our medical treatment facilities on a capitated basis. Efforts are underway to ensure our automated systems accurately capture Prime enrollment numbers.

Financial Accountability

With the TRICARE program came a more appropriate method of allocating funds to maintain the health of our beneficiaries. This new system is called enrollment-based capitation. The essence of this funding methodology mirrors the per member per month funding methodology prevalent in the private commercial sector. Just as the TRICARE program was a significant paradigm shift from our previous way of doing business, so is enrollment based capitation.

Enrollment based capitation provides a set amount of funds based on the age and gender for each beneficiary who enrolls in TRICARE Prime at a military treatment facility. Regardless of the health care services the enrollee uses, with rare exceptions, no further reimbursement is provided to that military treatment facility. The focus of the medical staff is to keep the enrollee healthy and prevent the occurrence of long term and chronic conditions.

Prior to enrollment based capitation, defense health program funds were allocated based on the workload generated at each military treatment facility. As more services were provided, more funds were allocated. Obviously, such a funding method provides little incentive to improve the health status of our beneficiaries.

This year is the transition year for all military treatment facilities to convert over to enrollment based capitation. The Corporate Executive Information System will also provide key reports to our facilities so they can succeed in this environment. Enrollment Based Capitation training has also been provided to our staff.

The new Ambulatory Data System also captures diagnosis and procedure information on outpatient visits. The capturing of this more detailed clinical information is critical for decision making and will also support our new costing methodology.

While I am confident that this new funding methodology is necessary, I expect some future adjustments and refinements to occur as this funding methodology is fully implemented in fiscal year 1999.

The Future of TRICARE

The future of TRICARE is bright, but not without further changes. As you are well aware, refinements to this program are occurring. The Medicare Subvention Demonstration will be tested over the next three years. We are also in the process of providing TRICARE Prime to those active duty service members who are assigned to geographically remote areas. Efforts are also ongoing to craft the next generation of performance based TRICARE managed care support contracts that focus heavily on improving beneficiary satisfaction. All these changes are aimed at improving the TRICARE program and making the TRICARE benefit universal to all eligible military beneficiaries.

Medicare Subvention

We have a moral obligation to allow all military retirees who wish to stay in the military health system that option. The Medicare Subvention demonstration that was approved by Congress last August gives the Department of Defense the opportunity to offer the TRICARE benefit option to our military retirees under TRICARE Senior plan.

The Medicare Subvention Demonstration allows beneficiaries age 65 and older to participate in TRICARE Prime at selected sites. With this demonstration we are attempting to provide the services required by the Health Care Financing Administration for an At-Risk Health Maintenance Organization that is more cost effective than the private sector. If successful, the potential to expand the TRICARE Senior program to all military retirees will improve.

Subject to the approval of our site applications from the Health Care Financing Administration, the Medicare Subvention Demonstration is projected to begin this summer. The Army Medical Department has four military treatment facilities participating in this demonstration. The four Army facilities are, Madigan Army Medi-

cal Center at Tacoma, Washington, Brooke Army Medical Center, San Antonio, Texas, Reynolds Army Community Hospital at Fort Sill, Oklahoma, and Evans Army Community Hospital at Colorado Spring, Colorado. Preparations are already underway to provide this expanded TRICARE benefit option to those military retirees selected to participate.

TRICARE Prime Remote

The TRICARE program has not completely fulfilled its pledge of providing a uniform benefit to all eligible beneficiaries. Service members stationed in geographical separated units are not always afforded the full benefits of the TRICARE Prime benefit. The goal of the TRICARE Prime Remote initiative is to rectify this situation.

The TRICARE Prime Remote option provides active duty service members and their families assigned to Geographic Separated Units access to TRICARE Prime through the regional TRICARE Managed Care Support—MCS—contractor network. The contractor assigns active duty service members, and their family members who choose to enroll, to civilian network primary care managers. Active duty service members and their family members are eligible for the TRICARE Prime Remote Program if they live and work greater than 50 miles from a military treatment facility.

The difficulty in providing these service members the full TRICARE Prime benefit dealt with the need to ensure medical oversight for any care rendered to them and the funding stream to pay for their care. Adjustments have been made to realign the supplemental care funds to care for these soldiers to our managed care support contractors and the establishment of a medical management oversight operation is being implemented.

Once fully operational, all service members and their family members will be afforded the opportunity to participate in the TRICARE Prime Remote option if they choose.

TRICARE 3.0

As we speak, work is going on with the managed care support contracts for the year 2000. I am optimistic that many of the challenges identified with the first generation of contracts will be eliminated.

First, this next generation of contracts will be performance based versus the prescriptive requirements that exist in our current contracts. By being performance based, contractors will have more flexibility to propose civilian best practices in their bids. This means our beneficiaries will be afforded in the next TRICARE contracts the most effective clinical and administrative processes known to date.

I am extremely pleased with the heavy focus the TRICARE 3.0 contract places on improving beneficiary satisfaction. Built in financial incentives will ensure future managed care support contractors strive at all times to improve the satisfaction of their customers. This will be measured by Department of Defense approved beneficiary satisfaction surveys.

I am also optimistic that the new financial mechanisms planned for in the TRICARE 3.0 contracts will be fully integrated with the enrollment based capitation methodology that our military treatment facilities will be working under. I anticipate major improvements in the ability of our local commanders to accurately determine the impact of their healthcare resource decisions real time. Unfortunately with the existing managed care contracts the lag time to identify the financial impact of local health care decisions is problematic.

I am confident that many of the shortcomings identified in the first managed care support contracts will be rectified. My staff will accomplish an extensive review of the TRICARE 3.0 requirements to ensure existing shortcomings with our existing contracts are eliminated.

The world is constantly changing, and so is health care in our nation. The TRICARE program is part of the evolution of our military health system. As the Army and the Army Medical Department changes with the incorporation of TRICARE, we will continue to focus on our core value of managing the health of every eligible military beneficiary so they receive the right level of care at the right time and in the right place.

I ask for your continued support of the TRICARE program as it offers us the best way to provide quality care to our beneficiaries. With TRICARE we can maintain our position as a world class system capable of continuing Army Medicine's proud tradition of "Caring Beyond the Call of Duty."

ARMY MEDICAL DEPARTMENT COOPERATION WITH SISTER SERVICE MEDICAL
DEPARTMENTS

The Army Medical Department has, and continues to, cooperate with the Air Force and Navy Medical Departments to leverage assets to conduct enhanced operations where possible. Sharing resources and delineating specific responsibilities among the services to eliminate redundancies and bolster efficient application of resources has been a key tool in our strategy to cope with reduced program funding. The Department of Defense has already initiated Service Executive Agents—EA—for common functions which cross service lines. EA's have a Tri-Service responsibility for very specific programs. Examples of EA's where the Army has the lead include but are not limited to: Armed Force Institute of Pathology; Armed Forces Medical Library; Clinical Executive Information Systems; and Armed Forces Epidemiology Board.

Cooperation among the services has taken on many faces. Clinical, ancillary, and administrative services, as well as, personnel, facilities, and educational programs are among the areas where we are also reducing redundancies. This cooperation reaches wide across all three Services. There are several examples where the Service's synergistic efforts have produced a superior product:

- A prime example of inter-service cooperation exists in Colorado Springs. Through a combined executive council, Evans Army Community Hospital, the 10th Medical Group (United States Air Force Academy Hospital), and the 21st Medical Group (Peterson Air Force Base Outpatient Clinic) have developed a seamless healthcare delivery system. They instituted a number of consolidations, shared services, and joint alliances covering key healthcare disciplines among the three medical treatment facilities.

- A Tri-Service group representing Walston Air Force Medical Facility, Patterson Army Health Clinic, and Navy Branch Medical Clinics at Lakehurst, Earl, and Willow Grove developed a tentative plan which serves as a consistent, consensual structure for the Delaware Valley Primary Care System. This initiative is a right step toward a consolidated, coordinated, and collaborative Tri-Service, multidisciplinary Managed Health Care Delivery System.

At other locations, one service is the predominant provider of health care with sister Service assistance in very specific ways:

- The 62nd Medical Group (USAF), McChord Air Force Base, serves as a Primary Care Clinic of Madigan Army Medical Center. Through this cooperative agreement, automated referral processes have been standardized, redundancies eliminated and efficiencies maximized.

- The staff at Darnall Army Community Hospital at Fort Hood, Texas, as in many other facilities, is augmented with Air Force staff. At Darnall, Air Force physicians assigned to the facility to perform plastic surgery and pulmonology. Additional arrangements with Air Force physicians at Wilford Hall, Air Force Medical Center, in San Antonio, Texas, allows vascular and perinatology cases to be resolved more easily within the Military Health Service.

- Recognizing the Tri-Service nature of Tripler Army Medical Center, the Commander has assigned a Navy Captain as the Deputy Commander for Clinical Services. Several Navy and Air Force physicians serve on Tripler's staff, with some serving in clinical leadership roles.

Another way the Army reduces redundancy is by eliminating the competition for market share for a particular service.

- Walter Reed Army Medical Center has agreed not to provide obstetrics and gynecology service. These patients are seen at National Naval Medical Center. Similarly, National Naval Medical Center does not offer adult inpatient psychiatric care. Walter Reed provides this service in the National Capital Region for all three service.

Ancillary care, administrative services, and education are all areas that are currently being explored for more focused Tri-Service cooperation. Wherever you find sister Service facilities operating in close proximity you will invariably see cooperation in ancillary services. This includes expanding current contracts to include Tri-Service beneficiaries to leverage volume discounts.

- Madigan Army Medical Center has a commercial laboratory contract which naval medical treatment facilities are now utilizing. Thus, lowering the per unit cost per procedure.

- Administrative services run the gamut from sharing tumor board registry to utilizing one central appointment office to make appointments for Tri-Service medical facilities within a certain geographic region.

—Within certain regions, Services share Graduate Medical Education offices, while other regions simply offer other Services seats in their residency programs.

We have adopted an approach of cooperation as one that is fiscally sound and produces demonstrated efficiencies. Not addressed here is the myriad of ways that the Department of Defense shares resources with the Veterans Administration and the cooperation that exists with other state and local organizations.

GOOD NEWS STORIES

Finally, I would like to leave you with just a few of the many vignettes across the Command that highlight the diversity and successes of Army Medical Department missions. Just last month an Ohio infant suffering from botulism recovered rapidly after receiving an antitoxin developed by the U.S. Army Medical Research Institute of Infectious Disease. According to officials at Children's Hospital in Columbus, the 4 day old baby girl was admitted to the hospital and placed on a ventilator. Analysis of a stool sample confirmed the presence of botulinum toxin. On Friday, January 9th, the U.S. Army Medical Materiel and Development Activity received a call from the California Department of Health Services, Infant Botulism Research Prevention Program, inquiring about using an Army Investigational New Drug product to treat a suspected case of infant botulism in Ohio. The U.S. Army Medical Research Institute of Infectious Diseases medical monitor for the Army's emergency treatment protocol was contacted and quickly consulted with the attending physician at Children's Hospital. After notifying the Food and Drug Administration, the U.S. Army Medical Research Institute of Infectious Diseases arranged an overnight shipment of the Botulism Antitoxin. The first dose was administered at 1:00 p.m. Eastern Standard Time on Saturday. All regulatory procedures were followed. On Sunday, January 11th—about eight hours after the second dose—the infant showed the first clinical signs of improvement, beginning to move about and trying to breathe on her own. A couple of weeks ago the child was discharged from the hospital and on her way to recovery.

This past fall, the American College of Surgeons reviewed and verified that Brooke Army Medical Center met its criteria as an Adult Level One Trauma Center. Subsequently, Brooke Army Medical Center was designated as an Adult Level One Trauma Center in the State of Texas trauma system. Brooke Army Medical Center is now the first and only designated Trauma Center in the Army Medical Department.

Southeast Regional Medical Command's TRICARE Region Three has established a comprehensive, multi-level Breast Cancer Prevention, Detection, Education and Training Program. By using telecommunication technologies beneficiaries and providers across the Region have access to the latest information on breast cancer care—from their homes, their health care facility, the workplace and in the communities. A regional telecommunication network will be established, linking patients and providers throughout the region with the Breast Cancer Awareness and Solutions Center. Patients and providers can access the educational programs through interactive kiosks at the medical treatment facilities or through the World Wide Web via personal computers at the work site or in their homes.

In June 1997, the Chief of Staff, U.S. European Command, LTG David L. Benton, III presented the U.S. Army Medical Materiel Center—Europe with the National Partnership for Reinventing Government Hammer Award. The Hammer Award is Vice President Al Gore's special recognition to teams who have made significant contributions in support of the President's National Performance Review principles. Those principles are: putting customers first, cutting red tape, empowering employees and getting back to basics. The award recognizes new standards of excellence achieved by teams helping to reinvent government. To win the award, U.S. Army Medical Materiel Center—Europe, reengineered itself and the medical logistics system in the U.S. European Command area of operations. Medical materiel inventories were reduced throughout the theater while order-ship times improved from weeks to days. The U.S. Army Medical Materiel Center—Europe was the first, and here to date, only Department of Defense organization in Europe to be so recognized.

I would like to take a moment to describe a very innovative program called the AIM HI—Animals in the Military Helping Individuals—Service Dog Training Center established at Fort Knox, Kentucky. The first of its kind, this unique program teaches inmates of the Fort Knox Regional Corrections Facility to train select stray and donated animals to assist physically disabled Exceptional Family Members and Veterans. Through the combined efforts of the Army Medical Command, Veterinary Command, and Fort Knox, this is the only Center that provides service dogs for the

military community. This program has several goals and yields various benefits. Service dogs provide greater independence for recipients by retrieving and carrying items, turning on and off lights, pulling wheelchairs, alerting to certain sounds—literally opening doors for our people in need of assistance. This program benefits all involved, patients receive the assistance they so desperately need, inmates learn a trade, stray animals are saved from euthanasia, and medical expenses are reduced. Currently, there are eight inmates and fifteen dogs in various stages of training development. The center plans to graduate ten service dogs every six months.

The world is constantly changing, as the Army and the Army Medical Department changes too, we will continue to focus on our core values and functions. We will maintain our position as a world class system capable of continuing Army Medicine's proud tradition of "Caring Beyond the Call of Duty."

Once again, I appreciate the opportunity to appear before the Committee and shall be happy to answer any questions you may have.

STATEMENT OF VICE ADM. HAROLD KOENIG, MEDICAL CORPS, SURGEON GENERAL, U.S. NAVY

Senator STEVENS. Admiral.

Admiral KOENIG. Mr. Chairman, Senator Inouye, thank you for the opportunity to meet and speak with you this morning. General Roadman, General Blanck, and I work so closely together, that I will try and not repeat anything he already said.

I would ask that my full testimony be made a part of the record.

Senator STEVENS. All of your statements have already been put in the record.

Admiral KOENIG. I only want to cover four points very quickly.

READINESS

First of all, in Navy medicine we recognize that readiness is our primary mission. That is what we are here for and that is what we do. To be able to do this, we have to be able to recruit, train, and retain capable, talented, and dedicated people.

We have learned, and we are progressing in the Navy, to totally integrate our Reserve and active components and treat them essentially as one. A good example of that is in June and July of this year the hospital ship U.S.N.S. *Comfort* will deploy to the Baltic region and at least 10 percent of that crew will be from the Reserve component and a significant number of Reserve personnel will backfill at the National Naval Medical Center [NNMC] Bethesda to continue services at that institution during that deployment. This I think will significantly increase the readiness of our people and demonstrate that we can operate in this fashion.

TELEMEDICINE

The second point I want to talk about is telemedicine. Over the last 3 years we have made tremendous strides in learning how to use this technology. I am extremely proud of our accomplishments, and at the urging of one of your staff members, we put together a 15-minute video that has been distributed to them. I hope you will have time to take a quick look at it. I think we have had some tremendous accomplishments.

We have learned to bring this technology to our sailors and marines wherever they serve on board ships and in very remote locations. As you know, the U.S.S. *George Washington* is in the final days of returning from a 6-month deployment to the Persian Gulf. During that time we accomplished 60 electronic medical consultations. We processed nearly 900 digital radiologic procedures. The

combination of these technologies resulted in avoiding 20 medevacs. We estimate the savings just for transportation of these 20 medevacs to be approximately \$90,000. In addition, we think we have saved \$50,000 in what would have been purchased medical services by treating patients aboard the ship that otherwise would have had to be evacuated, and we saved in excess of 300 man-days. The bottom line is what we saved in taking care of these people in place more than paid for all the hardware and all the communications costs.

We are learning to use telemedicine in our local and remote shore-based facilities. I think one of the most unique uses of our new technology is some of our hospitals are now taking pictures of new babies and e-mailing them to the ships so their dads can see mom and baby and see that everything is OK.

One of the most innovative uses I have seen is a couple of our hospitals have actually enabled people to refill prescriptions over the Internet. That is much easier than taking an empty pill bottle to a pharmacy and even easier than doing it over the telephone. It is really simple for them. We hope that in the near future some of our facilities will start enabling patients to make appointments over the Internet. That will really save a lot of time for them.

TRICARE

The third area I want to talk about briefly is TRICARE. One of the things we have learned is that we have to be more than an expert, an advisor on TRICARE. We have to become ambassadors of TRICARE. We have to take TRICARE to the people. We have to listen to the people. The people will tell us what is wrong. They will tell us what the issues are. Then we can work the issues and reengineer TRICARE so it fits their needs.

The major issues with which we have dealt during the last year have been issues of portability, how to take care of isolated sailors and marines and airmen, soldiers, who are in isolated areas away from military treatment facilities. I think we have made good progress on that.

The issues of balanced billing have come under control.

The modification of the enrollment process so people can immediately enroll on a continuous basis and even what we call split enrollment, which means if one family member is in one region and one is in another, they do not have to pay twice. We have worked all those issues out.

We are now working to improve and simplify the educational materials.

But if I was asked if there was one thing that we could do that would make TRICARE substantially better, I would say to you that it would be to allow us to automatically enroll active duty family members who live within the catchment area of a military treatment facility, rather than make them go through all the labor of trying to understand all these details.

Senator STEVENS. Say that again, will you?

Admiral KOENIG. Automatically enroll active duty family members who live within the catchment area. By that I mean those who live close to a military facility that can take care of them. Automatically enroll the active duty family members rather than make

them go through all the labor of trying to sort through all the differences between TRICARE prime, TRICARE standard, TRICARE extra. The vast majority of our people want to come to us. We ought to offer them that opportunity without putting them through a long process.

But if they want to do something else, they have the option to disenroll or allow them to stay. I would rather have TRICARE standard and pick my own doctor and go to my own physician. That would make it a lot simpler for a lot of our beneficiaries.

The vast majority of the folks we deal with are very young. They have never had to seek health care on their own before. They have always been taken to it. We need to bring them into the system and then educate them as they grow into our system rather than try and make them learn all of this stuff right up front because sometimes they make horrible decisions. A horrible decision to me is not to elect TRICARE prime. The 18-year-old Marine corporal with a 17-year-old wife and a baby—the most viable economic option for that couple is TRICARE prime. If they elect TRICARE standard, they are going to be in economic chaos as soon as that baby gets sick the first time. That is why I think we need to work on that, and I will be happy to give you a lot more information on that. I know my colleagues all share this feeling.

The other area in TRICARE has to do with what I consider the disenfranchisement of our over 65 beneficiary population. We have simply got to address that issue. We very badly need those patients in our system to train our people and those people count on us for health care. They count on us for their entire lives. Medicare subvention but that only reaches a very small portion of that entire population. In the Navy, we only have one site, San Diego. It is not up and running yet. It probably will not be for several more months. So, I see it as only a partial fix.

FEDERAL EMPLOYEE HEALTH BENEFITS PROGRAM

We need to do more. There are a lot of options that are being talked about in this town. One of them is making people eligible for the Federal Employee Health Benefits Program [FEHBP]. I think we need to study that and study it hard, but we need to do it rather quickly. Putting it off for 3 or 4 years is not going to help these World War II vets. A lot of them are not going to be around 3 or 4 years from now. We need to solve the senior problem now.

One of the ways I think we could do this and do it well and do it quickly and for a lot less money would be to expand the pharmacy benefit, what we call our base realignment and closure [BRAC] mail order pharmacy benefit, to all of our seniors. With that, they will have Medicare A, Medicare B, and a reasonable pharmacy benefit. If you do the math on this, if we charge them \$8 for a prescription, which is what we charge them today, and they are on five medicines chronically, it costs them 44 cents a day. That is four cigarettes. Most of our people can probably afford that.

I think we need to look hard at that because we have a huge beneficiary population aging quickly and they need our help and they have been counting on it all their lives, and when they need it the most, it looks like it is not going to be there. I think that is a lot of the confusion that the Senator has identified during his visits.

That anxiety is not just for those who are already over 65. It is for those of us who are approaching it. We see that coming too.

WOMEN'S HEALTH STUDIES

The last area I want to talk about just briefly with you is the area of women's health. In the Navy, we have created a women's health strategic planning group. When you ask for it, you get it. And, boy, have they come to me with issues. Right now I have 21 unfunded, badly needed studies that need to be done in the area of women's health. I am a pediatrician by training. One of the things I learned in pediatrics is that children are not little adults. They are different. Women are not little men. They are different.

We need to do these studies. We are trying to incorporate women very rapidly in the Armed Forces of the United States. They represent nearly 15 percent of our total force right now, and we know precious little about what we really need to know to be able to incorporate them into our service. We simply cannot translate medical practices for men to women. They are different. So, we need to be able to do this research. As of today, there are no targeted funds for research in women's health in the Armed Forces. We need to get on with that.

PREPARED STATEMENT

Finally, my retirement. Senator Inouye mentioned it. I will be retiring on June 30, 40 years to the day from when I came in.

Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF VICE ADM. HAROLD KOENIG

INTRODUCTION

Mr. Chairman, thank you for the opportunity to share Navy Medicine's 1997 accomplishments and plans for the future.

This has been an exciting year in Navy Medicine. On August 6, 1997, Navy doctors announced a breakthrough in organ transplantation. CAPT Dave Harlan and LCDR Allan Kirk, from the Naval Medical Research Institute in Bethesda, Maryland, were the first to successfully demonstrate a new medical therapy that appears to prevent the rejection of mismatched transplanted organs. That same day Navy medical personnel in Guam responded to the tragic crash of Korean Air Lines flight 801 which hit a hillside on approach to Guam International Airport with 254 passengers and crew aboard. Medical personnel from Naval Hospital Guam, and personnel from Naval units throughout the island responded and played a key role in saving lives. Of the 32 survivors of this tragedy, 19 were cared for in the Naval Hospital, many requiring intensive trauma care and emergency surgery.

This single day exemplifies the essence of Navy Medicine; the talented, professional healthcare providers ready to forge the future of medicine while responding in a moment's notice when our nation calls.

As I have said many times, Navy Medicine's primary mission is readiness. We meet our mission by ensuring our Sailors and Marines are fit and healthy. Navy Medicine, like civilian medicine, is making the transition from curative to preventive health care. As such, readiness means keeping our Sailors and Marines where they belong; healthy and on their jobs.

Navy Medicine's reach extends to remote areas of the world, aboard ships and submarines and in the air. Our Sailors and Marines depend heavily on Navy Medicine to meet their health and fitness needs wherever their missions require them to serve. This past year medical personnel deployed to serve around the world, from Haiti with the United Nations peacekeeping force to South America assisting with drug interdiction operations. In addition, Navy medical personnel were in Guam, Southeast Asia, Saudi Arabia, Africa, and Indonesia, providing medical assistance, training, humanitarian relief, and health services in the furtherance of national in-

terests. Our medical personnel also worked in unison with Air Force and Army medical personnel providing superb cross-service support. We continue to look for opportunities to increase Tri-Service programs.

Navy Medicine's customer service focus is changing the culture of our system to one in which our products are judged by how well we satisfy our customers. I have made this a top priority in Navy Medicine. It's an ongoing effort, one we will continue to refine in the coming years.

To help us better care for our customers, the men and women of Navy Medicine are developing innovative ways to keep our Sailors and Marines healthy, fit and on the job. We've had many successes in this area and as a result have made changes in the way we do business. These innovative changes are a result of Navy Medicine's focus on four goals: (1) taking health care to the deckplates; (2) moving information, not people; (3) making TRICARE work; and (4) re-engineering our business practices.

TAKING HEALTH CARE TO THE DECKPLATES

When I visit our men and women at Navy and Marine Corps bases around the world, I see many examples of health care at the deckplates. This means taking care of Sailors and Marines as close to their unit as possible so we can keep them on their jobs. It means providing care in mobile vans at pierside, in aviation squadrons, at base gyms, in barracks and in the operational field environment.

I see Navy sports medicine specialists taking health care to the field, resulting in timely health care and injury prevention. At Marine Corps Base Camp Pendleton, the Naval Hospital created a Sports Medicine and Reconditioning Therapy, or SMART, clinic which is located right on site where Marine recruits are training. Recruits and staff alike applaud this arrangement because it saves recruits a 42-mile round trip to the base hospital and reduces lost training time. In addition, the SMART clinics have been very successful in reducing injuries and decreasing rehabilitation time. At Marine Corps Base Camp Lejeune, North Carolina, our Naval Hospital has established injury prevention and rehabilitation services at the base gym where providers work with Marines to ensure safe exercise protocols.

Our Dental officers, too, are taking care directly to our Sailors and Marines on-board ships. Dental readiness is particularly important when ships are deploying because dental facilities are more limited at sea. To this end, we have set the goal for dental readiness of our active duty forces at 95 percent and ensure everyone on-board receive annual dental care, with special emphasis extended before deployments. The Dental center is living up to its slogan of "Fit to bite, fit to fight."

Deployment of our Medical Corps specialists on aircraft carriers has proven extremely successful. Last year, at the request of the fleet, a clinical psychologist was deployed with the U.S.S. *Kitty Hawk* and a physical therapist with the U.S.S. *Enterprise*. Availability of professionals during the carriers' deployments demonstrated a substantial return on investment towards keeping Sailors and Marines on the ship and on the job. Additional deployments have confirmed the results and Navy Medicine manpower specialists are currently working with Pentagon officials to implement pre-deployment placement of clinical experts on all twelve aircraft carriers over the next four years.

Coordinating medical care for our deployed Sailors and Marines requires concurrent efforts by multiple people. The staff at our Naval Station Branch Medical Clinic in San Diego, California have done just that. The clinic has a fleet liaison program to coordinate with the 61 ships homeported in San Diego ensuring the crews' medical needs are met. Instead of waiting for the phone to ring, the fleet coordinator anticipates the needs of incoming ships' personnel. Medical personnel on deployed ships are contacted a month before their arrival in San Diego and met by the fleet coordinator upon arrival, with appropriate medical appointments already scheduled. Not only does this help keep our Sailors on the job, but our customers are much happier with this personalized service.

MOVE INFORMATION, NOT PEOPLE

Along with taking health care to the deckplates, Navy Medicine is using technology to move information, not people, as we meet our readiness mission. I was very gratified during my visits this year to such remote locations as Diego Garcia in the Indian Ocean and to Guantanamo Bay, Cuba to see our medical personnel using technology to store and transmit medical information. Over the years, we became pretty good at moving people to Medical Treatment Facilities. We utilize an extensive medevac system that is complex to use, expensive to operate and takes our Sailors and Marines away from their workplace. As we move forward in the in-

formation age, using technology to move information rather than people has become part of our day to day life.

This effort has resulted in tremendous strides in learning ways to employ telemedicine and technology to our advantage. My favorite "good news" story concerns my specialty, Pediatrics. In Rota Spain, a two-year old's complicated case of pneumonia was managed using telemedicine techniques. The pediatrician in Rota was able to "electronically" consult with specialists at National Naval Medical Center Bethesda, Maryland, to determine the best treatment plan for the patient. In addition to improved quality, the use of telemedicine prevented a costly stateside medevac for this patient and his family.

Navy Medicine is also using technology to improve pharmacy services. At Naval Hospital Bremerton, Washington, a pharmacy technician, while revising the command's homepage, asked why couldn't they have a pharmacy refill request page on the Internet. He created one, and now their customers have an additional avenue to obtain pharmacy refills. Naval Hospital Sigonella, Sicily, is our second hospital to offer Internet refills, and we expect to offer this service at additional facilities in the next year.

Navy Medicine is using training exercises to incorporate technology into the operational environment. Kernel Blitz 97 (KB97), held off the coast of southern California in June, is an example. The medical portion of KB97 was designed to evaluate training methods used to prepare for our wartime mission, improve medical readiness, get the hospital ship U.S.N.S. *Mercy* underway with the fleet, stand up a Reserve fleet hospital and test the augmentee manning of the amphibious ships.

Data on Personal Information Carrier (PIC) was used by the U.S.N.S. *Mercy*, U.S.S. *Tarawa*, Fleet Hospital Operations Training Command, and the Surgical Unit ashore. PIC is the generic term used to describe any self-contained computer technology with personal data carried on an individual, resulting in all vital patient data being readily accessible to the medical team. During Kernel Blitz, a commercially available version of PIC, the Multi-technology Automated Reader Card (MARC), was used. The MARC contained patient information and algorithms for all casualty management, a record of clinical care, and required time for administering patient care treatment steps. The Military Health System (MHS) plans on deploying PIC technology to support active duty forces in the operational environment during fiscal year 1999.

We even have an on-line mentor program, known as the "Virtual Naval Hospital." The "Virtual Naval Hospital" is a digital health sciences library designed to provide naval health care providers access to current, authoritative medical information. It assists providers by providing information on about eighty of the most common medical problems at sea, common medical procedure descriptions, and the General Medical Officer Manual; thereby, improving quality of care. It also has a section for patients, where they can access information on first aid, consumer health products and twenty-five health topics on preventive medicine.

Technology has been applied to innovations that are great morale boosters for our people. The Telemedicine system operates on the same protocols as the existing site televideo conferencing systems throughout the Navy. Then when the system is not being used for medicine, it is a Quality of Life enhancement for the crew to communicate with loved ones ashore. The Naval Hospital Naples, Italy, staff created a program where pictures of newborn babies are digitized and can be forwarded through the e-mail system to the baby's father at sea or grandparents in the United States. With our Naples-based families being so far from their loved ones, this is a great way to help them share news of the arrival with their loved ones back home. Some Navy ships also have used Video TeleConferencing (VTC) to connect with our hospitals, allowing mom to talk to dad and letting him see the "new arrival" while he is deployed at sea.

Our ships are benefiting from, and making good use of, telemedicine. The medical department of the aircraft carrier U.S.S. *George Washington* has teamed up with the Telemedicine Department of the National Naval Medical Center in Bethesda, Maryland, creating the most advanced treatment facility in the fleet. Telemedicine enhancements proved very effective during the ship's latest deployment. Utilizing technology once exclusive to a fixed Medical Treatment Facility, the *George Washington* performed 39 "electronic" consultations with stateside medical specialists; 200 digital radiology procedures; and prevented six medevacs, saving over \$26,000.

In the past, when faced with mental health issues at sea, the patient was often medevaced off the ship. During the first three weeks of the *George Washington's* deployment, medical staff performed five mental health exams using VTC. Shipboard medical staff transmitted the patient's mood, body language and response to questions to the hospital-based psychiatrist. Combining the VTC with the clinical history, the psychiatrists assessed the patient and recommended a course of treatment.

Navy Medicine is working to make virtual mental health specialty care at sea a routine service.

On another occasion, the *George Washington* needed a radiologist to monitor a live ultrasound study. The patient had typical symptoms of acute gallbladder disease, but the physician was having difficulty confirming the findings and requested a specialist's help. Through VTC, the radiologist offered a differential diagnosis and clarified the imaging artifacts.

Needing an ophthalmologist, the *George Washington* again turned to telemedicine. They had a patient with an injured cornea complaining of vision loss upon waking. Within seven minutes of the original request, an ophthalmologist was examining the patient on the ship from over 5,000 miles away via satellite. This turned out to be a two-fold success story. The patient stayed on the ship knowing that he had received the best possible care; and, an unnecessary medical evacuation was avoided. As a result of this innovative technology, the sailor was treated aboard ship and returned to duty within 48 hours of initial evaluation in sick call.

Telemedicine is not only effective on board ship, but has direct applications at our shore-based regional and remote medical facilities. Our health care providers at Naval Medical Clinic Annapolis, Branch Medical Clinics at Arlington Annex; Dahlgren, Virginia; and, Sugar Grove, West Virginia have used telemedicine for assistance in expediting care in the National Capital Area. Remote locations such as Naval Hospital Rota, Spain and McMurdo Station, Antarctica have also utilized telemedicine services provided by the Telemedicine Consultation Center in Bethesda. Expediting care for a complicated case of bacterial pneumonia in a two year old child; routine healthcare in evaluating Naval Academy midshipmen for history of nasal and sinus pathology; consultative follow-up and treatment of new and pre-existing skin lesions and pathology in the oral cavity; as well as cardiology support to the Independent Duty Corpsman for urgent care management of chest pain have all been demonstrated this past year. Telemedicine's potential as a time saving device in the day to day operations of Navy Medicine is readily apparent; along with its expanding capability to improve the overall quality of care rendered to our beneficiaries in remote areas.

MAKING TRICARE WORK

Our third goal is "making TRICARE work." Implementation of TRICARE is near completion, all contracts have been awarded and all regions are scheduled to be operational in the near future. With implementation complete, we will be able to meet our readiness mission while providing our beneficiaries choice, guaranteed access, and quality health care at the lowest out of pocket cost possible.

TRICARE is a profound and fundamental change in the way we provide health care services and, as with any change, is unsettling for our beneficiaries. The Services are working together to address key concerns of our customers: portability; improving access to care for geographically separated units; solving balance billing concerns; and, claims processing in order to make the system more customer-focused and user friendly. To further reduce confusion, Active Duty Family Members, who live within an MTF's catchment area, should be automatically enrolled in TRICARE Prime, unless they choose another option.

In addition, the Under Secretary of the Navy has appointed a task force headed by the Navy's Deputy Surgeon General to develop strategies for identifying educational techniques to simplify TRICARE and improve understanding. The task force is comprised of medical, line personnel and family members from the Navy and Marine Corps, who are actively exploring educational instruments, materials and methodologies for improving understanding of TRICARE.

Navy Medicine sees TRICARE education as a continuum throughout an active duty member's career. We plan on developing separate briefs targeted to the recruits in Navy and Marine Corps boot camp, when an individual reports to the first duty station, upon getting married, and when a couple has their first child. In addition, Navy Medicine is developing an information card for our active duty members outlining the procedures to use when seeking medical care outside of their normal duty station. We are also investigating methods to telemarket TRICARE through the Internet, and recommending the development of a national TRICARE hotline number to provide universal access to TRICARE information.

In July 1997, Navy Medicine initiated a TRICARE Customer Advocacy Demonstration Program. The intent of the project was to provide a location outside of the medical facility where beneficiaries could go to receive assistance in understanding TRICARE and problem solving. The base and medical facility commanding officers determined the actual location. Demonstration sites were opened in Bangor, Washington; Corpus Christi, Texas; Camp Pendleton, California; Jacksonville, Flor-

ida and Yuma, Arizona. Preliminary data demonstrates a very favorable customer response to this outreach effort. We are currently collecting data from the six-month demonstration project to evaluate possible expansion to other sites.

Navy Medicine is also playing a leading role in the development of TRICARE Prime Remote. TRICARE Prime Remote will involve the provision of care through a network of civilian primary care managers to Active Duty Service Members and their families living 50 miles or approximately one hour of driving time from a comprehensive Military Medical Treatment Facility. As Executive Agent for this program, Navy Medicine will support the development of a management process to oversee the health care of all members participating in this initiative. We are pleased with the potential of this initiative and expect it to improve health care access, uniformity of care, and quality of life; reduce time traveling to an MTF; and, decrease out-of-pocket expenses for our Service-members and their families.

In this process of restructuring our health care system, we are ever mindful we must not disenfranchise our Medicare-eligible beneficiaries. They remain our most loyal customers in military medicine. DOD believes the military can provide Medicare-eligibles health care at a lower cost than commercial at-risk HMO's and expressed the need to transfer Medicare Trust fund dollars to DOD (Medicare subvention) during the past decade. Landmark legislation passed in 1997 authorizes a 3-year demonstration of Medicare subvention. Titled TRICARE Senior, the demonstration project is authorized to be conducted at six military sites and will permit a specified number of our Medicare-eligibles to enroll in TRICARE Senior. Naval Medical Center, San Diego, California is the Navy's demonstration site. Following the MTF's application and acceptance into the Medicare program; a prescribed number of military retirees will be able to enroll into the TRICARE Senior Program. The target enrollment period is slated to begin this summer, with healthcare delivery beginning 60 days later. Navy Medicine is very excited about this new venture; and if successful, look forward to permanent legislation.

We realize Medicare Subvention is only a partial fix to resolving the "Broken Promise" of lifetime care for our retirees. Over half of Medicare-eligibles do not live near an MTF and are not likely to enroll in TRICARE Senior. Retiree groups are urging other alternatives to Medicare subvention for our retirees 65 and over. Presently, the Center for Naval Analyses (CNA) is conducting a study to improve options for access to care in the Military Health System (MHS) for these beneficiaries. This study is focusing on the possibility of offering the Federal Employees Health Benefits Program (FEHBP) as an alternative for those 65 and over. The other part of the CNA study will evaluate the feasibility of expanding the mail order pharmacy program to all Medicare-eligible beneficiaries, vice the current policy of providing this benefit only for residents of Base Realignment and Closure Commission (BRAC) sites. We expect to have CNA's report later this year.

The FEHBP option, known as FEHBP-65, is the most comprehensive and enthusiastically supported by the various retiree groups. Presently not available to the military, FEHBP is a collection of health plans offered to federal civilian employees and retirees. FEHBP is paid for through monthly premiums, with the federal government subsidizing up to 72 percent of the premium. While we appreciate the merits of this system and its potential to ensure full health care coverage of our Medicare-eligible beneficiaries, Navy Medicine advocates the continued review and assessment of the cost and benefits of both FEHBP-65 and other alternatives to increase MTF access for our Medicare-eligibles.

CUSTOMER FOCUSED BUSINESS PROCESS RE-ENGINEERING

Navy Medicine continues to improve readiness by re-engineering our business practices. We are continually looking for new ways to do an even better job of keeping our Sailors and Marines healthy and on the job.

Recently the quality of Military Medicine has been called into question by various media reports. In response, Navy Medicine is working closely with the Office of the Assistant Secretary of Defense (Health Affairs) to reevaluate our system and processes. Be assured, Navy Medicine is strongly dedicated to providing the highest quality of care to all our beneficiaries and has taken specific actions aimed at refining and monitoring health care. We continue to participate in the Joint Commission on Accreditation of Healthcare Organizations accreditation process and are developing initiatives to improve our surgical procedures and clinical practices. Resolution of pending malpractice and adverse action cases with the National Practitioner Data Bank is aggressively being pursued. We are ensuring all Navy health care providers possess a valid unrestricted license. Navy providers with special Oklahoma licenses practice medicine under plans of supervision; none is practicing independently. To assist beneficiaries to make informed decisions on health care, a "report card" for

each MTF is being created providing "on line" quality and consumer information; and, the feasibility of a shared decision making process between patients and providers regarding treatment plans and priorities is being studied. Finally, improved support to our providers is being enhanced through application of various automation tools and Internet services designed to produce the best possible outcome for all our patients.

In today's environment of scarce resources, Navy Medicine is very involved in several initiatives to collaborate and consolidate assets with other Services. Within the National Capitol Region, the National Naval Medical Center, Walter Reed Army Medical Center and Malcolm Grow Air Force Base Hospital have created Tri-Service psychiatry, pediatric, neurosurgery, neurology, neonatal intensive care, obstetrics, and substance abuse units. Not only are patients from all three Services routinely admitted to these units, but the units are made up of Army, Navy and Air Force clinical staff. Top administrative roles are also taking on a Tri-Service flavor. The Executive Officer at Naval Hospital Charleston, South Carolina is an Air Force Officer, while the Deputy Commander at Tripler Army Medical Center in Hawaii is a Navy physician. The Interservice Training Review Organization continues to move forward with the consolidation of training programs to ensure maximum utilization of our training dollars. To date 33 programs are currently consolidated or under consideration for consolidation including Physician Assistant, BioMedical Repairman, Nuclear Medicine, Cardiopulmonary and Hemodialysis technology.

Navy Medicine is an active member of the Joint Department of Defense (DOD)/Veterans Affairs (VA) Executive Council. This council is developing several initiatives designed to promote cost-effective use of federal health care resources by minimizing duplication and underuse while benefiting both VA and DOD. Navy Medicine currently has over 100 facility-level Navy/VA agreements in effect including major medical and surgical services, laundry, blood, and laboratory services. Development of a DOD/VA formulary; joint development, assessment, insertion and use of telemedicine; and, integration of VA Networks and TRICARE Lead Agents offering more healthcare options to our beneficiaries are a few of the other exciting initiatives currently underway.

Navy Medicine is strongly committed to maintaining a quality Graduate Medical Education (GME) program. Our training programs ensure Navy providers are exposed to clinical experiences required to become skilled practitioners. GME Tri-Service cooperation is becoming more of a factor in ensuring the success of these programs. All three Services are now required to fill GME slots available in the other Services before out-service training is authorized.

Recruitment and retention of quality military physicians and dentists remains a priority. Within the physician community, surgical specialties continue to be the most difficult to recruit and retain and we currently have shortfalls in family practitioners, general and orthopedic surgeons. Physician specialty shortages are being addressed through the Financial Assistance Program which provides recruiting incentives for civilian physicians already trained in undermanned specialties and the Navy Active Duty Delay for Specialists program which allows graduating scholarship students to defer their active duty obligation until completion of their civilian residency. End strength shortfalls persist for our Navy dentists. In fiscal year 1998, legislation was passed to increase special pays for Dental Corps officers. These improvements, as well as increases in the number of Armed Forces Health Professions scholarships are expected to balance and stabilize the force structure of Navy Dentistry by fiscal year 2000.

To better meet the health care needs of our female Sailors, Marines, family members and retirees, Navy Medicine is taking some bold new steps in the area of women's health. As assignments for active duty women have expanded, so have the challenges and opportunities to re-evaluate Navy Medicine initiatives ensuring women are able to access the care they need. We have created a Women's Health Strategic Planning Group as part of a demonstration project addressing active duty women's health issues, including family planning, pregnancy counseling, breast care, parenting issues, sexually transmitted diseases and other women's health concerns. We want to create a comfortable, supportive and private environment for active duty women that will enable them to express their health care needs and concerns.

Our reengineering efforts are reaching all facets of Navy Medicine. The Navy's overseas research labs in Jakarta, Indonesia; Lima, Peru; and Cairo, Egypt, are vital to keeping our Sailors and Marines healthy when they visit foreign lands. Before our ships make foreign port visits or when they conduct military operational missions or exercise overseas, these labs ensure commands are fully aware of any potential health risks they will face not normally encountered within the United States. These labs also interact extensively with their host countries, fostering good will with the United States.

Navy research labs occasionally play an important role outside their normal duties. When a suspicious package was discovered at B'Nai B'rith Headquarters in downtown Washington, D.C. this past April, scientists at the Naval Medical Research Institute (NMRI) in Bethesda, Maryland were called upon to assist the community. A letter accompanying the package claimed dangerous biological agents were present in the petri dish found inside the package. The FBI requested NMRI run tests on the dish and the gelatin-like substance also found in the package. Working through the weekend, NMRI personnel found no disease causing organisms, other than common environmental bacteria. Their hard work saved the day and the FBI's Assistant Director complimented the Navy for its prompt and efficient work in the incident.

CONCLUSION

In closing, I would like to reemphasize Navy Medicine's commitment to providing quality, cost effective health care to those entrusted to our care, be they in our hospitals, on foreign shores, at sea, or in harm's way. The beginning of the twenty-first century will continue to provide us new challenges and opportunities. Navy Medicine is responding to these challenges by emphasizing and building a state-of-the-art health care system and ensuring that the health and fitness of our Navy-Marine Corps team remains at the highest level.

On a more personal note, I will be retiring on June 30, 1998, 40 years to the day I took the oath as a Midshipman at the Naval Academy. It has been an exciting, challenging forty years. I would like to thank you for your outstanding support of Navy Medicine over the years. It has been an honor to share Navy Medicine's successes with you.

Senator STEVENS. Thank you very much. Do not worry about that 65. Dan and I can tell you about that. [Laughter.]

Senator INOUE. That is a long time ago. [Laughter.]

Senator STEVENS. That is what Senator Thurmond said the other day. Someone said, oh, to be 70 again. He said, what do you mean? Oh, to be 80 again. [Laughter.]

General Roadman.

STATEMENT OF LT. GEN. CHARLES H. ROADMAN II, SURGEON GENERAL, U.S. AIR FORCE

AIR FORCE OVERVIEW

General ROADMAN. Mr. Chairman, Senator Inouye, thank you for having us here.

I think if you listen to what Ron and Harold have talked about, it is really that we are trying to reshape our system as we find requirements to do business differently. You cannot get to a 1-percent increase in inflation vis-a-vis 7 unless you do the job differently.

All of us are really approaching it in five categories. One is readiness, which is clearly our main business.

The second is TRICARE and learning the techniques of how you get the best bang for the buck, for the dollars, and give great service, to look at the infrastructure that we currently have and draw the inefficiencies out of that, which, Mr. Chairman, you mentioned, while focusing on building healthy communities. Part of what we all worry about are some of the behaviors that we have in the first half of our life and then try to have the medics pull us out of the fire in the second half of our life. We need to get well into prevention, in order to be able to deliver the quality care that we need.

I would like to address readiness first. We all see that there is a changing threat environment. The Air Force is currently working on and has fielded the first operational chemically hardened ATH, air transportable hospital. The entire program should be up, fully funded, and ready to go by September, the year 2000.

As we talk about telemedicine, telemedicine is not just images and consults. It is also getting the right information to the right provider at the right time to be able to make decisions in individual cases as well as populations because our job is to have a fit fighting force ready to support combat arms.

We are currently fielding now in a program called Desert Care, part of the DOD surveillance program, the ability to track symptoms and diagnoses real-time on web technology so that we can see what is occurring within our population. As a matter of fact, about 2 months ago within 1 day we diagnosed an outbreak of food-borne illness, salmonella, and were able to, within 1 day, then go back and track that to the food source rather than having it become rampant within the community. So, that is telemedicine as well. It is informationalization of the system.

As the theater becomes more mobile, less in the world war III mindset, we also are looking at aeromedical evacuation and care in the air. Care in the air is the ability to transport more critical patients than we had previously transported. It requires retraining and repurchasing of equipment because the intervention in the air requires the ability to be able to make diagnoses in the air, and that is different from what we used to do. So, we are reshaping that airevac capability.

We also are very well aware that, as we look at the end game, which looks more like a militia nation than a large standing force that we have had in the past, we recognize the requirement to put the Guard and Reserve on equal status with the active as we field a total force team. We have been very successful in a project called Mirror Force in trying to settle some of the cultural issues that really separate us and have separated us for years.

Just last Monday we had the great opportunity to bid farewell to a Reserve unit that was actually going to Al Kharj replacing an active unit at an air transportable hospital. So, we are seeing that integration that is absolutely critical.

As we talk about TRICARE, I think many people do not understand that TRICARE is a strategy. It is not just a benefits package. But as the Active Force becomes smaller, we have to be outsourcing and privatizing a lot of care that we did not do in the past. TRICARE is the DOD's approach to support the warfighters and their families.

I would add to Harold's statement. Automatic enrollment is a critical issue, but I will tell you the annual reenrollment is another issue that forces people to jump through a hoop to maintain their care. So, the legislation probably needs to, as we work that text for you, add the reenrollment.

I would like to foot-stomp the issue of the promise. I believe that we recruited and retained, ever since 1973 when we went to an All-Volunteer Force, based on the promise of health care for life. I see us backing away from that. I believe that we have a promise that we must step up to, and I also believe that the expansion of the national mail order pharmacy is the first step in doing that, as well as testing other alternatives.

In addition to that, we are reshaping our health care delivery system with sharing agreements with folks like the VA. The Air Force currently has about 119 sharing agreements, and Senator

Cleland is doing an evaluation of the interface between DOD and the VA. I was talking to Congressman Sonny Montgomery and he said one of the real positive things is how much we, as the three services, have already done in trying to get better synergy in Federal medicine. As a matter of fact, we have two joint ventures that are currently working. And, Mr. Chairman, as you know, Elmen-dorf Hospital will be opening in October of this year which is both joint Air Force and VA.

In addition, in New Mexico we have got the Gerald Champion Hospital which is an alliance with a commercial venture, trying to look for synergy of how to do our business better.

All of these are win-win propositions for the Government in our quest to be a steward for the dollar, for the local community, and for our patients.

Recruiting, I think, is an issue. As Ron talked about, the Reserve issue for us is not a big problem. The only corps I am particularly concerned about is in the Dental Corps where we are having some retention and some recruitment problems. We are transferring HPSP scholarships to dentists as well as the bonuses that you all have supported in the past.

As we look at the acquisition for most of our physicians, USUHS is a critical issue for us. It gives us a cadre of strong military physicians that stay with us for a long time, and it is not just physicians as we have the graduate school of nursing giving us a strong cadre of nursing skills as well.

We, as well as the other services, are looking at developing initiatives to develop leaders. As you know, all of our flags are now no longer corps specific and so all competition for all flags is all corps.

In order to do that, we have got to increase the experiential level of corps that previously have been at a disadvantage. As a matter of fact, over the past 2 years we have increased from 35 percent to 55 percent of nonphysicians as commanders. So, we are seeing that experiential level rise because you cannot go from the bedside or the chairside and directly into a large system leadership. It is a graduated phenomenon.

PREPARED STATEMENT

As you recognize, the environment is changing at the speed of heat, and we have got to change our system along with it. We think that our past performance over the past 3 years has reflected that. We are looking forward to a bright future and we thank you for all your continued support in the past and what you are doing in the future. Thank you.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. CHARLES H. ROADMAN II

Mister Chairman and members of the committee, thank you for this opportunity to address the goals and accomplishments of the Air Force Medical Service (AFMS) in realizing our vision for the future. We achieved significant progress this year in our strategic plan to enhance high quality of life standards for the men and women of the Air Force, their families, and retired members. We use the Parthenon to illustrate our strategy, which is based on four pillars: medical readiness, deploying TRICARE, rightsizing, and building healthy communities, with customer service as the capstone.

REENGINEERING MEDICAL READINESS

This past year has been a banner year for our primary mission, medical readiness, as we continued to reengineer our major programs. Reengineering goals include ensuring rapid response to support theater commanders, institutionalizing evacuation of the stabilized casualty, and aggressively enhancing Total Force partnership. We've made dramatic strides in achieving these goals under the medical readiness pillar.

The AFMS introduced new medical technologies and strategies to maintain a high level of readiness with a smaller, more mobile medical "footprint." For example, the old contingency hospitals, designed for large-scale conflicts during the Cold War era, were large, costly and immobile. In July 1997, active, Guard and Reserve personnel worked together to reengineer the contingency hospital into the new Air Force theater hospital. Because the theater hospital is based on the modularly deployable air transportable hospital (ATH), it is more responsive to theater commanders' needs for both flexibility and larger inpatient facilities.

Contingency support for theater commanders.—Air Force medics provided support to contingency and humanitarian operations this year in locations such as Southwest Asia, Croatia, Africa, Central and South America, and the Pacific Rim. Highlights included manning our prototype chemically hardened ATH at Prince Sultan Air Base, Saudi Arabia, and a 10-bed ATH in support of U.S. humanitarian operations in Haiti.

In addition, the AFMS provided crucial force protection services to deployed troops, such as stress counseling before, during and after deployments, and epidemiological surveillance and education in-theater to prevent disease. Certainly, immunizations are an important part of our epidemiology program. As such, we support the DOD initiative to immunize our airmen against anthrax, a highly lethal disease. We know that our deployed troops face a validated biological warfare threat of anthrax and are confident in the safe and effective FDA-approved vaccination. In addition, the Air Force anthrax vaccination implementation plan ensures accurate tracking of all personnel who receive the vaccine. Our force protection measures also mandate a response to chemical warfare threats. We anticipate initial operating capability of our tested and fully functional chemically hardened ATH (CHATH) in August 1998, with full operational capability of all CHATH's scheduled for September 2000.

Institutionalizing evacuation of the stabilized casualty.—Throughout contingency and humanitarian operations, Air Force aeromedical evacuation (AE) flight crews and critical care air transport teams (CCATT's) provided in-flight care to quickly move stable and stabilized patients. Moving stabilized patients, defined as airway-secured, hemorrhage-controlled, shock-controlled, and fracture-stabilized, represents a change in DOD doctrine to support the reduced forward medical footprint. The CCATT, which adds an intensive care capability to routine medical flight crews, provides high quality enroute care without draining staff and equipment from theater commanders. CCATT's are operating out of Wilford Hall Medical Center in San Antonio, Texas, and Keesler Medical Center in Biloxi, Miss. With the initiation of a certified CCATT course in October 1997, the Air Force began training 106 teams per year at Brooks Air Force Base in San Antonio.

In further support of the Air Force's unique "care in the air" mission, we continue to pursue the insertion of telemedicine into the aeromedical environment. We completed the Phase I Proof of Concept Demonstration in September 1997, having flown nine missions within U.S. Air Forces, Europe, on three aircraft—the C-9, C-141 and C-130—for a total of 70.6 hours. In this demonstration, we used commercial off-the-shelf computer systems and applications in addition to existing airframe communication systems, and were able to validate use of e-mail and "chat" to and from the aircraft to ground AE command and control elements. We are now working toward our Phase II Proof of Concept Demonstration in the Pacific Air Forces theater.

Ensuring Total Force partnership.—The AFMS goal to change and sustain the Total Force culture was formally established with the implementation of the Mirror Force strategy. The Mirror Force Strategic Plan provides a blueprint to organize, train, and equip our medics as one seamless team, with no distinction between active duty, Guard, or Reserve. The Mirror Force concept has been incorporated into all aspects of readiness efforts. All integrated product teams, conferences, training activities, operating instructions, and deployable medical teams now stress active and reserve component participation.

As more operational missions transfer to the Guard and Reserve in the future, Mirror Force will ensure one standard: the AFMS standard. To prepare for these combat support missions, reserve component medical forces will be taking on some

traditionally active duty missions in the near future. For example, beginning this summer, the Air Force Reserve Command and Air National Guard will deploy ATH units to support Operation Southern Watch at Prince Sultan Air Base, Saudi Arabia. The Eskan Village Clinic in Riyadh will see similar rotations by reserve component units in the summer of 1999. Medical readiness personnel from the Air Force Reserve Command and Air National Guard will serve rotations in the Joint Task Force-Southwest Asia theater planner position. These deployments clearly demonstrate Mirror Force in action.

What we witnessed in 1997 was a major transition from the past. By the Year 2000, we will have a reengineered, deployable medical force that is more flexible and modular to support theater commanders and is capable of supporting evacuation of the stabilized casualty.

DEPLOYING TRICARE: BETTER ACCESS AND MORE CHOICES

The "Deploying TRICARE" pillar incorporates several key aspects of our strategy: population-based health management, marketing, partnership with the civilian health care sector, and TRICARE infrastructure. Much of our progress can be described in terms of these facets.

Population-Based Health Management.—TRICARE is designed to ensure patients receive the appropriate care and procedures they require. By deploying TRICARE as part of an overall strategy, the AFMS is able to optimize quality, cost, and access to care, while offering beneficiaries a choice of health care plan options.

Enrollment in TRICARE Prime has been strong and well ahead of predictions. In fact, as of October 1997, DOD had more than 2.7 million Prime enrollees, to include more than 800,000 at Air Force MTF's. TRICARE Prime is available in nine health services regions; contracts have been awarded in the remaining three regions where Prime will be available by June 1998. A survey last year of TRICARE Prime enrollees found that 80 percent rated their care good to excellent and nine out of 10 would reenroll. Customer service for our beneficiaries is further enhanced through TRICARE Service Centers, Health Care Information Lines, and self-help information.

As primary care managers and other members of the health care team work to coordinate care for our beneficiaries, we've increased efficiencies to control costs and improve access to primary care. We realigned services that were less efficient in terms of scarce dollars, personnel, and facilities. Inpatient services used well below capacity are being closed or consolidated with other services. Careful evaluation of emergency services resulted in closures of those used for mostly non-urgent care. This shifts more resources to provide routine and non-urgent acute care in more appropriate settings such as primary care clinics, promoting continuity of care for our patients. In addition, the limited use of emergency rooms (ER) for true emergencies results in a loss of skills proficiency for the ER staff. Therefore, local civilian ER's provide an equal or better standard of care to our patients. In the long term, our greatest efficiency will be realized from our increased emphasis on preventive services, such as health and wellness centers. Disease prevention saves dollars, but more importantly, greatly enhances the quality of life for our military families.

Marketing.—The AFMS has aggressively communicated our strategy and vision to our military beneficiaries, Air Force leadership, and members of Congress. Briefings and written materials help everyone better understand their health plan and how best to use health services to meet their needs. However, continued emphasis is necessary; thus ongoing communication efforts are taking place as TRICARE evolves throughout the 12 regions.

Partnership With the Civilian Sector.—To better serve our patients, we continue to forge stronger partnerships with the civilian health care sector. The DOD Managed Care Support Contracts bring services that optimize and complement those available in our military facilities to ensure beneficiaries can access required services through quality provider networks. DOD is working with contractors to tackle concerns that have caused beneficiaries or providers to be dissatisfied with the program, to include problems in claims processing. Data on how the contractors are doing in terms of timely, accurate processing of claims show continual improvement.

TRICARE Infrastructure.—TRICARE infrastructure, such as policies and contracts, is improving our care to beneficiaries as well. We implemented fixes to many problems our beneficiaries and network providers helped identify. Problems such as balance billing of beneficiaries, multiple copayments for a single episode of care, and the portability of Prime enrollment will all be resolved by late Spring 1998.

Finally, thanks to your support, there is now legislation authorizing a demonstration project to give Medicare-eligible beneficiaries the same access to MTF's as retired TRICARE Prime enrollees. The Medicare demonstration will be at six sites in

the continental United States and will last for three years. While this is an important first step in providing seamless care to all our beneficiaries, we do have two concerns.

One concern is that a limited number of Medicare-eligible beneficiaries will be allowed to enroll in the initial demonstration project, creating some dissatisfaction among others who will not be able to enroll at that time. However, the value of a demonstration project is that it offers a trial period to learn lessons and improve the process before expanding the program. A second concern is that, following the announcement in February of the actual demonstration sites, we still require at least six months to implement the program because of extensive regulations, particularly those of the Health Care Financing Administration. Recognizing and planning for these concerns, the AFMS has taken a lead role in implementing this demonstration project, and we are committed to its success. In addition, we are working with our DOD counterparts to explore other alternatives to improve access to care for Medicare-eligibles.

RIGHTSIZING OUR MEDICAL FACILITIES AND FORCES

With rising health care costs and reductions in the DOD budget, the military must maintain a health care system capable of providing high quality medical care within the constraints of a capitated budget. Therefore, the objective of our rightsizing pillar is to develop an overarching strategy that will optimize the overall force size while it ensures we have the right number of people with the right skills at the right place and time. Further, it makes sense to rightsize as we evolve from an inpatient to an outpatient environment.

Model using best business practices.—To make the transition to a rightsized environment, we applied the DOD Sizing Model. This model was created as a joint effort by the Army, Navy, and Air Force to establish the optimum baseline for medical authorizations, so the services could still execute readiness and day-to-day overseas missions.

In addition to this baseline, the AFMS developed several assumptions instrumental in deriving the current target being programmed into the budget. The first assumption is readiness is our first priority. The second assumption is quality health care for our beneficiaries must continue, with the goal of ensuring “blue suit” (Air Force) care for blue suiters and their families. Third, we must also provide a mechanism for quality graduate medical education. Finally, it was noted that health care is a process, not a place; care delivered outside the MTF is acceptable when based upon appropriate quality, cost and service considerations.

The rightsizing strategy, although initially directed from senior leadership, has been validated through a comprehensive strategic planning process, essentially a bottom-up review and analysis. The end product is a rightsizing strategy that will change how care is delivered in the AFMS. Programmed changes will result in fewer medical centers and hospitals. Inefficient small hospitals will convert to clinics as we move to a prevention-based system. Inpatient care at these clinics will shift to the civilian community.

The changes in facilities and reduction of inpatient beds have also prompted us to decrease our active duty and civilian personnel, “rightsizing” the force. We focused on making sure the decreases are made in the appropriate medical specialties while still meeting mission and peacetime requirements, and ensuring personnel policies are as humane as possible. Military treatment facilities will determine the specialty mix required for their patient population.

Two major strategies, the Integrated Forecast Board (IFB) and the Joint Services Graduate Medical Education Selection Board, were initiated to help ensure these changes are efficient, timely, and maintain a quality force to meet mission requirements. The IFB represents a major change in the way the AFMS projects training for the future. In the past, training requirements were identified by individual Corps without the benefit of integrated oversight and management. Due to shrinking resources, the Air Force sought to enhance its efficiency in forecasting medical training needs. Hence, the purpose and design of the IFB is to project Air Force medical personnel training requirements along product lines in support of changing mission requirements. It will determine Air Force needs for trained specialists in the future and then identify and prioritize training activities and programs that will prepare selected officers to meet those needs. The IFB ascertains training requirements for all specialties and corps, and considers various types of education programs including clinical residencies, fellowships, advanced academic degrees and non-clinical fellowships with both Air Force headquarters elements and private industry.

One of the important elements of the IFB process is to identify needs for specialty trained physicians. The IFB is conducted in the spring each year, and is followed by the annual Graduate Medical Education (GME) Selection Board. The GME selection board chooses physicians for residency and fellowship training programs beginning the following year. Prior to 1993, the AFMS conducted its GME selection boards entirely by itself. Beginning in 1993, the Army, Navy, and Air Force began conducting joint GME selection boards. Each year, the joint selection board is planned, coordinated, and conducted by one of the military services acting as executive agent. The years since 1993 have shown increasing cooperation among the military services in sharing training capabilities. In 1997, with the Army acting as executive agent, approximately 100 students were selected for training in programs conducted by other services. The Air Force will act as the lead agent in 1998, and we expect to continue this selection method.

As we forecast our personnel needs in a rightsized Air Force, we must consider the impact on our enlisted forces. For example, the issue of how to maintain skills proficiency when our facilities are downsizing may be critical in the future, particularly as unlicensed enlisted medics are unable to take those skills "downtown."

One of the greatest challenges we face as we make these transitions is to effectively communicate our rightsizing efforts to our customers. Briefings and written materials are provided to the MTF's to help answer concerns and dispel confusion, and Congress is kept informed through several forums.

The process of rightsizing our force is expected to continue through fiscal year 2006. It integrates both planning and programming efforts and will focus on innovative approaches to health care delivery that are cost-effective, provide continuity of care for our patients, and solidify prevention strategies.

BUILDING HEALTHY COMMUNITIES—INTERVENTION AND PREVENTION

The global mission of the Air Force requires airmen who are fit, healthy and ready to deploy on a moment's notice. The AFMS strategic pillar, building healthy communities was designed to meet that demand as well as deliver top-quality health services for the entire Air Force community.

The building blocks of our "building healthy communities" pillar include: an enterprise focus that ensures healthy, safe, ecologically sound work and community environments; prevention-oriented health service delivery system; force enhancement initiatives; and decision-making based on factual data analysis.

Fact-based initiatives.—To build healthy life styles and do it in the most cost-effective manner, we are investing in capabilities that promote prevention and intervention. Put Prevention Into Practice (PPIP) is a strategy developed by the U.S. Department of Health and Human Services, which the Air Force has implemented to organize and guide the preventive medicine efforts of our medical providers.

The first step in PPIP is the Health Enrollment Assessment Review (HEAR), which is conducted with each patient as they enroll in TRICARE Prime, and then is updated annually. Data from the HEAR helps us to identify the health status and prevention needs of our patients. This data is then reviewed and discussed between the provider and patient as a basis for clinical management and is used by major commands and the Air Staff to assure that resources are available to care for the populations assigned.

The second element of PPIP is the Preventive Health Assessment (PHA), which last year replaced the periodic physical examination program for all active duty members. The PHA is a four-stage process that includes a prevention-oriented clinical screening, occupational examination, screening of military-unique medical requirements, and counseling. The PHA will help us ensure the highest rates of mission and mobility readiness by providing feedback to commanders on the health of their troops.

Downsizing and increased operations tempo continue to challenge us, and we are responding with a variety of force enhancement initiatives, such as tobacco cessation classes and individual fitness prescriptions. To support these programs, we are establishing Health and Wellness Centers (HAWC's) at every Air Force installation. We now have HAWC's on 53 bases and installation fitness program administrators to help members improve their fitness at 70 bases. Our HAWC's provide "one-stop shopping" for health promotion and fitness assessment. These efforts are paying off, as we are beginning to see decreases in smoking and increases in fitness rates in our active duty force.

Another key aspect of building healthy communities is our occupational health program. Our state-of-the-art program provides for the anticipation, recognition, evaluation and control of physical, chemical and biological hazards in all Air Force workplaces. Our expertise has a high return on investment in terms of decreased

lost time, reduced compensation, improved performance and greater productivity. Success depends on dedicated teamwork within the medical service and with many other segments of the Air Force.

Air Force leadership is concerned about the ability of its members to cope with increasing levels of stress in the face of significant increases in operations tempo and force downsizing. As a result, the Air Force established an integrated product team (IPT) to evaluate suicides among active duty members and develop strategies for suicide prevention and intervention.

The IPT identified numerous factors as leading causes of suicide service-wide. Chief among them were relationship difficulties, members facing adverse actions viewed as "career ending," financial difficulties, substance abuse, and the perception that seeking help would have a negative impact on the individual's career. After evaluating this information, the team called in consultants from both the Air Force and public sector to develop a comprehensive approach to suicide prevention.

Since the inception of the suicide prevention IPT, the suicide rate for active duty members has decreased by more than 30 percent. This has been largely due to strong senior leadership, awareness training for all Air Force members, training at all levels of professional military education, and the development of critical incident stress management teams at every installation. The bottom line is that successful suicide prevention depends on self-aid and buddy care. Everyone must lead the culture shift in the way prevention services are delivered and remove the stigmata of seeking help. I'm proud to say that a civilian consultant hired by DOD to evaluate the military services' suicide prevention programs praised the Air Force's program as one that is "as advanced and enlightened as any I have heard of."

The Air Force established policies providing limited confidentiality protection to service members charged under the Uniform Code of Military Justice (UCMJ) and is seeking ways to broaden the coverage. We also greatly expanded the proactive role of mental health service providers. Various helping agencies in the Air Force—such as family services, chaplains, mental health services, substance abuse, and health and wellness centers—now work together to provide comprehensive prevention services that enhance both individual and organizational resilience.

Base helping agencies are now working closely together under an integrated delivery system, or IDS. The new system is designed to link base helping agencies to address risk factors, reduce stress and improve the coping skills and general well-being of individuals and families in the Air Force community. Wing commanders received guidance on implementing this system for their units last fall. Commanders at all levels can now work closely with the various agencies to offer a more comprehensive range of prevention services, increase the protective factors and decrease the behavioral risk factors in the community.

Family Advocacy is among the agencies that have shifted their focus from intervention to prevention. Professional family advocacy outreach managers at every base are providing educational and training programs, such as courses in parenting and couples communications.

In summary, base agencies now work closely with each other, helping to integrate those services which provide direct assistance to members and their families. As these agencies join ranks, officials believe potential problems can be identified earlier and efforts taken more quickly to prevent tragic trends.

QUALITY AND CUSTOMER SATISFACTION

Customer satisfaction with quality care is the capstone of the AFMS strategic plan. The AFMS has a long tradition of providing quality care, but we can't rest on past success. Air Force medics rigorously seek out and submit to external and internal quality assurance reviews, many by the same professional organizations that measure the civilian medical industry. Regardless of the measure, Air Force medics consistently score as well as, and in many cases better than their civilian counterparts. In fact, Joint Commission on Accreditation of Healthcare Organizations survey scores indicate Air Force hospitals have outscored civilian hospitals nationwide by 5 percent during the past six years. In addition, 17 percent of Air Force hospitals have received "accreditation with commendation," JCAHO's highest appraisal, for their outstanding services, quality patient education, and staff training programs. Only 12 percent of civilian hospitals have received this same appraisal. As an example, during a recent JCAHO inspection of Malcolm Grow Medical Center, Andrews AFB, MD, the surveyors commented: "Your medical staff is excellent * * * better than any civilian hospital I've ever surveyed;" and "On a scale of one to 10, with 10 being the highest * * * patients who continually stopped me gave you a 10 plus * * *."

We're also very proud of the fact that the number of Air Force physicians who are board-certified compares favorably with the number in the civilian community (67 percent vs. 66 percent) and that we experience a much lower rate of malpractice claims than the civilian community (seven claims per 100 physicians per year for the Air Force vs. 14 claims per 100 physicians per year in the civilian sector).

High marks in clinical performance are only part of the picture. The AFMS also measures itself by how satisfied customers are with the care they receive. Recent survey results show that our scores are higher in customer satisfaction than those of our civilian counterparts in terms of satisfaction with access, interpersonal relationships, and quality.

As we journey toward the next millennium, our ability to support the Air Force and DOD depends upon our progress in each of the four pillars: medical readiness, deploying TRICARE, rightsizing, and building healthy communities, with a capstone of customer satisfaction. We're confident in our ability to maintain an outstanding level of service for the Air Force and our country for many years to come, and appreciate the continued support of our beneficiaries, military leadership, our President and the Congress.

WOMEN'S HEALTH STUDIES

Senator STEVENS. I apologize. There has been a crisis come up about a situation developing tomorrow and I am still trying to solve it.

Before I forget about it, Admiral, we certainly agree with you about the women's health studies. We have done our best to assure that the transition is totally complete now, in terms of the services that the women in the armed services need. To my knowledge, no one has ever requested money for what you just suggested, those studies.

Could you give us an idea how much money would be required? And I assume it would have to be a joint services study, not just the Navy. Right? You do not need to give it to us now.

Admiral KOENIG. No; I know that.

Senator STEVENS. Give it to us for the record.

Admiral KOENIG. Yes; we are prepared to do that.

[The information follows:]

Current proposed Women's Health Research Studies in the Department of the Navy submitted by Bureau of Medicine and Surgery (BUMED), Office of Naval Research (ONR), Naval Health Research Center (NHRC), Center for Naval Analysis (CNA), and Naval Air Warfare Center (NAWC) include:

Priority: 1

Longitudinal Study of Pregnancy Outcomes in Navy Women Serving Aboard Ship and Ashore. Cooperative study with Naval Health Research Center designed in response to recommendations of the Standing Committee on Military and Civilian women in the Department of the Navy three year study; total funding: \$1.065 million (\$355,000/year).

Priority: 2

Development and Refinement of Interventions to Reduce Unplanned Pregnancy in Navy and Marine Corps Women. Two year study; total funding: \$440,000 (\$220,000/year).

Priority: 3a

Occupational Fitness of Active Duty Women for Sustained Operations. Three year study; total funding: \$450,000 (\$150,000/year).

Priority: 3b

Dynamic Strength Capability of Women in High Performance Flight Tasks. Three year study; total funding: \$900,000 (\$300,000/year).

Priority: 4

Gender Norming Human Factors for the Next Generation Ships and Equipment. Five year study; total funding: \$1.5 million (\$300,000/year).

Priority: 5a

Preliminary History of Sexual Assault and Active Duty Revictimization and Resulting Health Care Utilization. Three year study; total funding: \$2.4 million (\$800,000/year).

Priority: 5b

Relationship Between Active Duty Women Preliminary Maltreatment History and Health Care Utilization. Three year study; total funding: \$2.4 million (\$800,000/year).

Priority: 5c

The Relationship Between Post Traumatic Stress Disorder Symptomology and Occupational Performance and Attrition in Active Duty Women. Three year study; total funding: \$2.4 million (\$800,000/year).

Priority: 6

The Effects of Maternal Absence on Child Development, Health Care Utilization, and Operational Readiness. Two year study; total funding: \$500,000 (\$250,000/year).

Priority: 7

Pregnancy, Physical Fitness, and Force Medical Protection: A Pre and Post Natal Exercise Model for Active Duty Navy and Marine Corps Women. Two year study; total funding: \$400,000 (\$200,000/year).

Priority: 8

The Development of a Safe and Effective Exercise Curriculum to Reduce Musculoskeletal Injury in Navy and Marine Female Training Populations/Operational Communities. Two year study; total funding: \$500,000 (\$250,000/year).

Priority: 9

Establishment of a Registry of Birth Defects in Offspring of Active Duty Women. Ongoing registry; total funding: \$250,000/year.

Priority: 10

Medical Care of American Women in OCONUS Host Nation Medical Systems. Cooperative study with George Mason University. Two year study; total funding: \$180,000 (\$90,000/year).

Priority: 11a

Self Esteem of Active Duty Navy and Marine Corps Women and Relationship to Medical Force Protection. Three year study; total funding: \$450,000 (\$150,000/year).

Priority: 11b

Shipboard Health of Active Duty Women in the Navy and Marine Corps. Three year study; total funding: \$1.5 million (\$500,000/year).

Priority: 11c

Health, Wellbeing, and Health Care Delivery Services Available to Women Aboard Ship. Three year study; total funding: \$1.5 million (\$500,000/year).

Priority: 12

Application and Assessment of Urine Based Screening for Chlamydia in Navy and Marine Corps Women. Two year study; total funding: \$300,000 (\$150,000/year).

Priority: 13

Gender Differences in Immune Defense Mechanisms: Potential Application to the Management of Combat Associated Major Trauma. Three year study; total funding: \$750,000 (\$250,000/year).

Priority: 14

The Effectiveness of Telemedicine Consultation in Assessing Gynecological Disease. Three year study; total funding: \$750,000 (\$250,000/year).

Priority: 15

The Knowledge Base of Active Duty Navy and Marine Corps Women Concerning Health Promotion and Disease Prevention Behaviors. One year study; total funding: \$50,000 (\$50,000/year).

Priority: 16

Continuation of Defense Medical Epidemiological Database Development. One year study; total funding: \$100,000 (\$100,000/year).

Priority: 17

Mixed Gender Value Added Tactical Decision Making Under Stress. Three year study; total funding: \$750,000 (\$250,000/year).

Priority: 18

Gender Comparison of Suicide Risk and Adverse Psychological Response Assessment in the U.S. Navy. Two year study; total funding: \$280,000 (\$140,000/year).

Priority: 19

Gender Differences in Response to Cold Stress. Two year study; total funding: \$500,000 (\$250,000/year).

Priority: 20

Female Physiological Heat Exposure Limits (PHEL). Two year study; total funding: \$1.2 million (\$600,000/year).

Priority: 21

Tri-Service Hospitalization Rate Comparison for Female Specific Disease. Two year study; total funding: \$400,000 (\$200,000/year).

Priority: 22

Anthropomorphic Measures as Indicators of Body Fat Change. One year study; total funding: \$100,500 (\$100,500/year).

Priority: 23

The Health Status of Repatriated Female Prisoners of War/Torture Survivors. One year study; total funding: \$100,000 (\$100,000/year).

Proposed future studies addressing successful integration of women aboard submarines are: Gender difference in response to potential toxic atmospheric contaminants or radiation exposures that may occur during submarine duty; Women on submarines-health issues; Psychological predictors of attrition; and Psychological predictors of successful integration of women aboard submarines.

TRICARE/MEDICARE SUBVENTION

Senator STEVENS. You all mentioned TRICARE and Medicare subvention. I do have some questions about that.

TRICARE, 12 regions in the country. We have done nine. We have three more to do, but it looks like every time we are just about ready to go ahead, we have an appeal. There has been an appeal in every instance, and they have been settled. But the problems that develop in each region seem to be comparable to the ones that developed prior to the new one coming on line.

Is there not some way that you can have some kind of a cadre that can go and say, look, these are the problems that all the other nine have encountered, do not make the same mistakes? It would seem to me that a management structure to assure that the delays that the others have encountered would be avoided in these last three would be in order. Is that possible?

Admiral KOENIG. I will take that on. Yes; I think it is possible, and I think that we have a good chance at this time—it is actually two contracts to serve three regions—that this will not occur.

I have personally talked to the CEO, the one that is to come up first on May 1, and the biggest issue has always seemed to be the rapidity with which they process claims. I think these people indicate to me that they have learned lessons by looking back at what the other folks have been through.

Some of the other issues, though, that we identified in reference to enrollment and continuous enrollment, are issues that need to be fixed by the tri-service CHAMPUS office, the TRICARE Support Office. These are issues that we, the three SG's, keep asking to have fixed. These issues do not necessarily require legislation.

On the issue that I did mention to you earlier about automatic enrollment of active duty family members who live within the catchment area of a facility, I suspect we are going to need to have some sort of legislative help to get that done because of the resistance that we feel at other areas.

TRICARE ENROLLMENT

General ROADMAN. It will require a legislative change because the law now mandates choice and it is choice at the beginning rather than choice to opt out. Language is being written for that legislation and submitted to the Senate Armed Services Committee.

General BLANCK. Mr. Chairman, if I may—I am sorry. Go ahead.

Senator STEVENS. Be sure we get it too. We are probably going to have the first vehicle to deal with, if it is something that has to be done. We are going to be working on a supplemental when we get back in just 2 weeks, and I think we can get their concurrence to do a fix like that in a supplemental if you give it to us in time.

Yes, General?

General BLANCK. Besides the slowness in the payments and the issues you have already heard addressed, there are two other major problems with TRICARE. One is being fixed and one is not.

The one that is being fixed is the maximum allowable rates of reimbursement that were in some cases below that of Medicare. The rates that will make them at least as great as Medicare will be published in the Federal Register in the next month or so, and that will obviate that problem. So, no longer will physicians have to rely on being reimbursed at even below Medicare rates.

But the second problem is that the rates really are set to those of Medicare which many consider to be too low. As long as we are linked with that, we are kind of a captive of those rates, and some providers, some groups just will not accept those rates. They do in areas that are relatively provider-rich where there is a lot of competition, but in areas where that is not true, where providers do not have to take those rates, they really are opting out. Now, they have to accept Medicare by law, but they do not have to accept CHAMPUS by law. So, there are some issues with that as well.

Senator STEVENS. Well, they have to accept Medicare by law if they take Medicare. But I have had a whole series of people from Alaska—I just finished visiting with a young woman doctor who told me she just cannot afford to do the Medicare anymore, and it is not what she is getting repaid, it is all of the forms and reports and inspections and everything else that come from Medicare when she gets involved in it. She is a sole practitioner in a rural part of Alaska, and literally she was in tears and she told me she just cannot do it anymore.

TRICARE AND MEDICARE

Now, you guys have a lot of clout with that Medicare bunch. You ought to get in there and tell them to stop this because with Medicare subvention and TRICARE using Medicare rates, what you are doing is you are leading these people into a blank wall, if you think retirees are going to take that option, because they know that the

doctors that they have dealt with in the past are not taking Medicare patients.

My question to you is how can we interface all these people now using the private sector doctors. As you mentioned, Admiral, that is the filler that is necessary. As we have reduced the number of medical facilities, you have to move some of them out there, do you not? But if you take Medicare rates, they are not going to take it. This is a horde of people we are pushing out in the private sector, and if this young woman is right, they are not going to take them.

Have you talked to the Medicare people about this? What is going to happen to them? The private doctors cannot take that load if it is going to mean that they are swamped by all these Medicare reports, and they are probably going to have to give you reports too.

You talk about the Internet, Admiral. Why can some of these things not be put into some sort of a program that these doctors can have someone put a report through on the Internet and file it and not have all this paperwork and all these investigations and everything else that is going on in these little towns of America today?

General BLANCK. My understanding is that you can do that. You can file electronically by the Internet.

Admiral KOENIG. Unfortunately, there are I think over 1,500 different forms.

Senator STEVENS. That is what she said.

Admiral KOENIG. Yes; it is insane. We need a single form in this country that is filed for every kind of claim and it should require the minimum amount of information, not anything that anybody wants to have for their own little study.

Senator STEVENS. What is more, she told me that they give instructions as to how she is to perform her services. Her services must be performed according to this particular protocol or she is not going to get reimbursed. Now, that is a lot of baloney when you are out there operating on your own. She told me she would have to have a separate room in her office just to store the forms that she has to file if she is going to take Medicare.

I am serious now because all the retirees that want to go off and take this other Medicare subvention are going to be back at you like a dirty shirt. That is all there is to it. They are going to come after you if it does not work, and we will hear from them.

We are already hearing from retirees in terms of access, gentlemen. The facility has been closed. They do not know where to go. You talk about the young people being confused. They are confused. The place they got their service before—they do not know what their rights are. We are getting a lot more congressional inquiries on how do I do this than you would believe. I do not know about you. We have one person working on that now and we are a small State.

So, I would urge you to do something about that concept of the Medicare program being ready to provide private sector service for your people.

Admiral KOENIG. I think you got three guys down here who are in adamant agreement with you on all this.

Senator STEVENS. Well, tell us who to go to battle with. I will join you.

Admiral KOENIG. We can do that.

Senator STEVENS. I do not know anything about those blasted forms. I wondered when she told me about this protocol. She could not get repaid because she did not follow a particular approach to providing a medical service. But you all have to help us on that.

ANGIO-CT

I am taking a lot of time. You mentioned the angio-CT that is out there at Walter Reed. I do not have answers on this now. I went out to see the man who invented that, as you know, and went through it. I got to tell you I think the second generation is going to be staggering if they can achieve their goals.

But beyond that, I have notified every Member of the Senate that they ought to get out there to Walter Reed and use that because that is preventive medicine. That is not a diagnostic tool to tell me what is wrong with me now. It is to tell me how to not get sick in the future. Even this first generation has a great deal to do with lessening the workload of your service hospitals if we could find some way to put them to work.

Now, as I understand it, that is the only one we have, is it not?

General BLANCK. There is another one at Brooke Army Medical Center and I know some of the other centers use that technology, though they may not own it. They use it in the local community. There are perhaps 40 in this country total.

Senator STEVENS. Well, I wish you all would make a study of that and see whether it is as good as I think it is. If it is, I think we ought to expand the number of them that are available. You all have mentioned preventative medicine, and that is the answer to this baby boom generation is to try to keep them healthy so that they are not in inpatient guise.

I hope that we can find some way to not only accelerate the development of the second one. The second one is the one I told you about which really would have battlefield implications, could be put in a small van, the back of a pickup, and would diagnose a person's injuries within 90 seconds and tell the corpsmen within another 90 seconds what to do to save the life in order that they can be put into air transport and taken to a field hospital. If there is, God forbid, another war, the war of the future will be an awful fast one, and that device is absolutely necessary if we can bring it about.

But right now I really would urge you to tell us—let me back up. Are you making a study on this one that is at Walter Reed and how it has performed?

General BLANCK. Yes, sir; we have several protocols of how we are using it, who goes through it, the ages, what we are finding, all of those kinds of things. But some longer-range studies, because exactly as you have described, we are trying to use it not as a diagnostic tool when someone comes in with chest pain. We want to get them much, much earlier than that so that early on they can see their own coronaries noninvasively. And what a tool we believe this is to give them information that will allow patients to make choices and motivate them to make the right choices, the healthy choices.

If they see the beginning of disease, they can do things now that will then prevent the need for coronary bypass later.

Senator STEVENS. I asked the developer of that to give me all of the instructions that he sends out, and I am going to read that over this recess.

In terms of preventive medicine, it seems to me if it is really going to work, that ought to be the first thing you do on an annual physical of your people, and you ought to get back to the idea of asking all these people to take an annual physical so you can stay ahead of the curve as far as providing health services to them. But that is going to take a lot of those machines.

General BLANCK. Exactly right. Of course, TRICARE has built into it for the prime option the periodic fitness evaluation, the health promotion evaluation, and this would be one of the tools that potentially could be used. It gives a lot of information that again motivates patients to change behavior. We can give them a lot of information but it is difficult for them to take that step—and them is all of us too. Understanding that we are all patients—is critical to real health promotion.

Senator STEVENS. I have some other questions I want to ask. First I want to give it over to my friend here to see what questions he has. Senator Inouye.

Senator INOUE. A long time ago I learned that when Senator Stevens speaks, I listen. [Laughter.]

And I would suggest to you gentlemen you listen very intently. He has given you the green light to get more facilities. He has given you the green light to cut down the paperwork from 1,500 to 15. I think it can be done.

In looking over the reports of the medical services, it is easy to note that there is an increasing demand upon your services for humanitarian operations and low intensity operations. Looking at the budget again, I somehow feel that the budget will have an impact upon your readiness.

Are you concerned?

BUDGET IMPACT ON READINESS

General BLANCK. We are all pointing at each other.

Yes; I am concerned. I will let the others speak for themselves. Not that we cannot continue to do our day-to-day business. We can. But there are increasing demands, new surveillance demands on us, new kinds of health promotion demands. Increasingly we are trying to shift resources to healthy communities, to preventing disease, but that does not have a payoff in the same year. It has a payoff 5 or 10 or 20 years down the pike. So, when you are dealing with a year-to-year budget, sometimes it is difficult to make the decisions to shift that when you have a waiting room full of patients that have acute problems or where you are dealing with chronic care.

So, again, yes, we can continue to do the same things, even do some innovations perhaps, but all of us are, I am sure, constrained by the resources. Yet, there is only so much money and I think we all understand that. So, we are looking for innovative ways to be able to shift dollars.

I would comment that the Department of Defense has committed to fully funding, within that budget constraint, the health program, and right now we are working with the Department of Defense to find some moneys that were taken by their inflation readjustment. And I think all of you have information papers on that. It totals I believe \$87 million because when they readjusted for inflation, it cut the managed care contracts, which by contract have to get a certain amount. So, it cannot be adjusted. Therefore, we are short a certain portion.

And also our pharmacy costs have increased out of proportion to just the normal inflation, as it has throughout this country in every system, not just ours. So, you cannot apply the lower inflation rates to that as well.

We believe that the Department of Defense will find those dollars, but it still does constrain us, as I have described.

General ROADMAN. But I also think that it is perfectly obvious that we also consume WRM assets as we put air transportable hospitals and the tentage is out and being exposed to the environment and the supplies are being used. So, there are costs to that, and WRM is underfunded for us. Obviously, we can give you those numbers for the record.

But there is another component, Senator Inouye, that we have to keep in mind and that is as we do these missions, this is the best training that we can get for the real mission that we have which is our war readiness ability. I would just give you the example of the six burn patients that we brought back from Ecuador about 4 weeks ago. We had a group of people from Wilford Hall down in Ecuador giving training to the Ecuadorian physician community on trauma care. They got through 1 day of the trauma care didactics, and early in the morning or late that night, an oil pipeline exploded and oil came down through a community. These same physicians that were there then shifted into an operational mode and began treating severe wound casualties, burn casualties, and ultimately through the State Department, we, through our casualty transport system, brought six of them back to Galveston.

That is the type of stuff that differentiates us from all the other civilian health care agencies. That ability to do that real-time training, that real-time experience just pays for itself.

So, there are two aspects of it. One is positive and one is negative.

Admiral KOENIG. We are, as I mentioned before, about ready to deploy the hospital ship for a 6-week exercise. When you send a force like this to a part of the world where they have never seen anything like this, it sends a real message. This has great diplomatic benefits for the United States, but we do it at a cost. We will send 600 people on that ship. That will impact our health care system. We will adjust to that as best we can by cross-leveling and bringing in Reserves and so forth. But it is very important that we do this because if we do not know how to make that ship work, if we ever really need it for something very, very critical, and we do not know how to run it, we will not be able to do it. So, it comes at a cost when we do this, but we will benefit.

There are things that we need to do with those type of platforms in the future. We are already starting to skimp on that and I do

not like to see it happening. If you ask for it, we could certainly provide that information for you.

AIR FORCE HUMANITARIAN OPERATIONS

General ROADMAN. Senator, if I could just add one more thing. When our people come back from those deployments, in our parlance we say they are really reblued. If it is their first deployment, they finally understand why we do what it is we do. If they have gone before, they have come reblued. So, it is important that we do those things both for recruitment and retention, as well as for the diplomatic aspects of our playing on the world stage.

Senator INOUE. So, these operations have a positive impact.

General ROADMAN. Absolutely.

Senator INOUE. Admiral, I was pleased to learn that women are not little men. [Laughter.]

RESEARCH PROGRAM FUNDS

But they make up 14 percent of the military population. There are about 340,000 now.

In fiscal year 1994 and 1995, we did have a research program in which we appropriated \$40 million per fiscal year. I would like to ask the same question the chairman asked. Why did we not request funds after 1995?

Admiral KOENIG. It was not in the defense program after those years, so there has been no additional funds brought in to continue this research for the last 2 years. We have a lot of questions that we need to get answers to, and we simply do not have the dollars to go after that right now.

Senator INOUE. Do you consider this important enough to submit it?

Admiral KOENIG. Yes, sir.

Senator INOUE. I would hope that you will submit it to the committee.

Admiral KOENIG. We will.

USUHS GRADUATE RETENTION

Senator INOUE. On retention, that concerns the committee. Retention and recruiting. I note that all three services have concerns about not being able to retain physicians and physicians' assistants, nurses, et cetera.

What is the retention rate for the USUHS grads? I ask this because last year we saw numbers that were unbelievable, that 92 percent of the graduates of USUHS who have gone through the obligatory time have stayed on. Is that number still holding?

General ROADMAN. I think it is in the 96 percent range now.

Admiral KOENIG. Admiral Zimble is sitting back there. He is the resource man. He can tell us.

Senator INOUE. Well, Admiral?

General BLANCK. But the point is, it is very, very high. Jim, what is it specifically?

Admiral ZIMBLE. The number—of the 2,740 graduate physicians in the Uniformed Services University, 92.5 percent remain on active duty. Some of them still obligate, but they are still on active

duty. So, roughly 17 percent of the physicians in the Department of Defense are graduates of the Uniformed Services University.

Thank you for the opportunity.

General BLANCK. But the point is correct. The retention of those trained in the Uniformed Services University is far higher than from any other program. In-house GME is next. Those who train in civilian institutions are the ones least likely to remain on active duty because they do not have quite the culturalization. They have not identified themselves as military physicians. I think all of us are absolutely committed to have everyone in our medical departments, physician, nurse, physicians' assistants, dentist, whomever, practice military medicine, know about military medicine, not just medicine in the military, and it is fundamentally different.

Admiral KOENIG. Many of the USUHS students, by the way, have prior service. They come to us with a whole lot of military background and they are very, very valuable assets.

Senator INOUE. I met an outstanding physician who was a commander of a tank company who is now an M.D.

I am happy that DOD has finally seen the light and taken their fingers off USUHS and will permit it to go on. I do not want to bring this up, but the retention rate of USUHS grads, when placed against the retention rates of West Point, Annapolis, and Colorado Springs, would make the other services look pretty bad. So, congratulations to all of you.

Mr. Chairman, I have many other questions I would like to ask, but may I just submit them?

Senator STEVENS. Yes, sir, please.

Senator INOUE. I have to get back to the other hearing.

Senator STEVENS. So do I.

Senator INOUE. I am going to be back for the little men. [Laughter.]

Admiral KOENIG. Twenty-five percent of our nurses are male. [Laughter.]

Senator STEVENS. I think we better stay off that. [Laughter.]

I am going to submit some of my questions, but I am first going to yield to Senator Shelby and see what he has—

PREPARED STATEMENT OF SENATOR SHELBY

Senator SHELBY. Mr. Chairman, I appreciate this. I have a written opening statement I would like to be made part of the record, and I have some questions that I would just submit to the record. [The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD C. SHELBY

The American health care system is the best in the world. The Defense Health Program reflects our society's expectation of quality care: a highly trained medical professional supported by innovative technology and research. United States military personnel receive the best medical care of any military in the world. The military has a tradition of providing quality care.

There are serious problems in the Defense Health Program, however. Military personnel and their families who have opted for TRICARE Standard coverage have reported being denied treatment at military facilities. The Military Services are experiencing difficulty in recruiting and retaining dentists. Military retirees are being shut out of the Defense Health Program and contend that they are not receiving health care. The Administration has consistently underfunded the military health care program, which indicates a lack of commitment to our military personnel and

their families. It is clear that these deficiencies are causing members of our armed forces to vote with their feet, because the erosion of the health care benefit is frequently cited as a primary reason for leaving the military.

We can improve the Defense Health Program and correct the deficiencies in the system. I look forward to hearing the testimony of the witnesses today and their responses to our questions.

FACILITATING SERVICE

Senator SHELBY. I see my friend, General Blanck, here. I am always glad to see you as well as the other Surgeons General.

Thank you, Mr. Chairman.

Senator STEVENS. Well, thank you very much. Let me be as brief as I can, and I am not too good at it this morning.

I agree with you on Internet. All of you now have Internet developments and availability. But not many guys my age are using the Internet. [Laughter.]

What are we going to do to find some way to facilitate the services?

I was thinking of trying to see if we could not find some way to find a person in every community where there are a sizable number of retirees and have that person be the contact point who from their own home will run Internet services for fellow retirees. Can we do things like that? Are you trying to outreach to somebody who knows how to do it? Otherwise, despite the availability or not, they are going to be coming to the hospitals to make their appointments despite the fact we are going to have an Internet appointment system.

General BLANCK. Absolutely. The mail order pharmacy is an attempt to make something available that is relatively easy, everybody is familiar with. The use of a 1-800 number for information for appointments for various services, including refills, making things more readily available through a drive-in pharmacy that is in use in some of the facilities. All of these things—and there are many, many more—have to be used in combination. There should be a whole menu for a variety of services that people can choose from and, of course, making that information available is part of our challenge, whether it is through mailout, through the Internet, through visits to the hospitals, or health benefits advisors.

TECHNOLOGY AND COSTS

But, yes, we are very interested in working with groups and with specific representatives.

Senator STEVENS. I am not tooting my own horn, but I just want to tell you something. I hope you know when I first came here, that to use the PET scan process, you had to have an enormous cyclotron. I looked at that out at UCLA and said, you know, the trouble is there are not many universities who are going to get a cyclotron. Let us miniaturize cyclotrons. So, we used some of your money and we did that. Right? Cyclotrons are now fairly small. I saw one at UCLA that fits in a room one-third this size.

What are we doing about using your systems now to try to drive down costs of this technology? That is what I asked my friend out there with that angio-CT. It is a wonderful thing, but how are we going to drive down the costs so we can have one of those in every

military hospital? Are you looking at these things to be the cost driver on second and third generations of these things?

Admiral KOENIG. I think we have seen the cost of new technologies that have come into medicine over the last decade or two drop significantly. I am thinking of things like computer tomography, MRI's. The cost of this kind of equipment has dropped as it has become more proven and more people learn how to use it. I think we are going to see the same thing with this new technology that we have spoken of.

COST REDUCTION OF MEDICAL TECHNOLOGY

Senator STEVENS. I have to tell you, Admiral, I went to a symposium and they showed us the telecommunications and digital communications and the interfaces of all of the things that come out of the computer and digital revolution. And every new generation of that has been less costly, and it is now down to a factor of one one-hundredth of what it was when it started.

If you look at your medical technology, in spite of the fact that the costs are being held down, each new generation is more costly than the one preceding it. We have not had the drivers. There have not been any drivers in terms of trying to get the costs of medical technology down ala the concept of looking at what was the largest cost of the PET scan which is a cyclotron and driving it down. I think you ought to have within the services a group that is there to try and look at the systems and find out how those costs could be driven down.

General ROADMAN. That is being done, but the CBO in 1996 did a study and said 62 percent of the increases in health care from 1996 to 2000 would be attributable to technology. The problem that we have with technology is that, as you bring this up and if you have the electron beam CT scan, what you then have got to do is quit doing some of the interventive stuff that we have done in the past. So, the preventive stuff has really got to be a cost lever in order to be effective.

What technology has done in medicine in general, not in the service, is that medicine has been paid for on a fee-for-service basis and it encouraged more films exposed, more surgeries done, more procedures done, and what that has done since 1965 in our country has driven the cost of health care in an almost exponential climb.

So, as we take the technology, what we have got to do is assure ourselves that it does something that we are trying to stop and that we then can lever that to prevent illness out in the future because it is waiting for people to get sick that is so expensive for us. That is why we are talking about prevention and why you have as well. We have got to apply technology in the prevention area, not just in the intervention area.

Senator STEVENS. I do not disagree with anything you said, but I do think you ought to think of a contract like MIT and Cal Tech and a few others and get them to look at this current generation and ask them to reengineer them, look at them, and find out how they could produce them for less money in volume. And we are not doing that. You need volumes of these things that are coming on that are preventive medicine related.

If you look at the PC—did you ever see that first computer over in the Smithsonian? Look at the cost of that thing and I am told you are going to have one that size by 2005. It will have the same power that that thing had over there in the Smithsonian.

It is a question of who is driving the cost. CBO showed us that figure. That means if we are going to have any impact on cost of your services, we have got to have an impact on the cost of the new technology.

General ROADMAN. And the utilization, Mr. Chairman.

General BLANCK. Mr. Chairman, we have a steering committee that Admiral Koenig chairs, and it rotates, called the Technology Insertion Steering Committee. What we do is try to look at technology and we try to, through our research communities, partner with academics and with industry and in some ways we can use what is developed out there and in some ways be a testing bed for it and reduce the cost. We can get their expertise in downsizing and miniaturizing.

We right now, by the way, are not buying these things. We are leasing them because the next one that will come along will be better and we do not have to rebuy the thing and so forth.

All of this is going on and we need to continue that because we should be a model not only for how we manage care, health promotion, but also how we use the technology in health care.

Admiral KOENIG. Another thing that we are working on is with the Department of Veterans Affairs [VA]. We are working very, very closely with the VA now on these issues, and we figure if we can bring the power of our Department, along with the Veterans, to bear on some of these very tough issues, these high cost areas, we can drive the cost down.

For example, we buy that machine that we have been talking about like they have at Walter Reed. Why not put one in a VA facility or a military hospital and then use it 24 hours a day? For some reason we are wed to the idea of 8-hour days, 5-day weeks. When you buy a piece of equipment that costs \$1 billion, you better get the most out of it.

Senator STEVENS. Well, I agree with that.

Admiral KOENIG. And that is the kind of innovative change thing we need to make.

Senator STEVENS. But I also think if you can design one that costs \$1 billion, you can redesign it and it will cost \$500 million and the next one ought to cost \$250 million. And you can get it down to where we have got one everywhere.

We were talking about angio-CT II, and this will be my last comment. I foresee that that is going to be in the emergency room of every major city in the world. If it will work for the guys who have just come off the battlefield, it ought to work in Battlefield D.C. too, you know. [Laughter.]

But we have got to prove it through your use and then I think find some ways to produce it for less.

Well, let me thank you all. Admiral, we wish you the best. Maybe you can head up that task force I would like to see created and find some ways to analyze these things and bring the cost down. Most of the private practitioners just do not have time to do it, and your guys and the hospitals do not have time. Someone is going to have

to take the time and sit off and think about it. Let us drive the cost down. Miniaturization. You had the word, General.

ADDITIONAL COMMITTEE QUESTIONS

We thank you all for what you are doing and look forward to working with you. And you are going to give us that figure.

Admiral KOENIG. Yes, sir.

Senator STEVENS. Thank you very much.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO LT. GEN. RONALD R. BLANCK

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

HEPATITIS C

Question. I am informed that Hepatitis C continues to be a public health threat and may be particularly alarming to the men and women of our military. Does the military have an accurate count of the number of active duty personnel infected with Hepatitis C?

Answer. The prevalence of Hepatitis C among the Active Duty population is 1.3 percent, as determined by a Serosurvey at Walter Reed Army Institute of Research involving 16,000 AD and 30,000 applicants. This compares to a 1.4 percent prevalence of Hepatitis C in the general population.

Activities¹ placing any individual at greatest risk for contracting Hepatitis C are: IV drug use; transfusion; hemodialysis; tattooing; high risk sexual behavior.

Causes:¹ 40 percent to 50 percent no identifiable risk factor; 40 to 50 percent intravenous drug use; 5 to 10 percent transfusion.

Question. Does the military routinely screen active duty personnel, not just new recruits, for Hepatitis C in order to slow the progression of disease in infected personnel and to prevent the transmission of disease to other military personnel?

Answer. Individuals found serendipitously to have positive Hepatitis C serology, individuals with acute Hepatitis C, and people found to have serological evidence of Hepatitis C at blood donation are reported through Preventive Medicine channels. Identifying asymptomatic individuals who have positive serology for Hepatitis C is not being pursued.

Question. I have been told that exit testing for Hepatitis C at the time of retirement or discharge is the only reliable method of detecting the presence of Hepatitis C infection to ensure the health and safety of the individual separating from the military. Does the Department test for Hepatitis C during the exit physical? If so, what specific tests are performed during the routine exit exam?

Answer. The military does not screen active duty personnel. However, all blood donors are tested for Hepatitis C virus. Additionally, the Army continues random drug testing to identify and eliminate drug abuse within its ranks. The Department does not test for Hepatitis C during the exit physical. However, the SM completes a history form on which he/she is questioned about hepatitis, liver disease, etc. Depending upon further history and physical exam, appropriate tests would be ordered to determine if pathology or chronic diseases are present.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

MEDICAL READINESS

Question. An important readiness issue of concern is the shortage of provider specialties, dentists and physician assistants. What types of recruitment incentives are you implementing to actively recruit and retain these providers?

Answer. The recruitment and retention of highly trained individuals to serve within the Military Health System is critical to the overall health and readiness of the force. There are actually two areas which we feel assist us in meeting this challenge. They are economic and educational, and both assist in recruitment and retention.

¹ Annals Internal Medicine October 15, 1996.

The following economic incentives are in place to assist us in the recruitment of active component health professionals:

Nurse Corps Recruitment Bonus.—This bonus of \$5,000 is paid to Nurse Anesthesia Recruits and Family Nurse Practitioners who opt to accept a four-year active duty service obligation rather than a three-year obligation.

Dental Corps Accession Bonus.—This bonus of \$30,000 is paid to Dental officers who join the force with a four-year active duty service obligation. This program was begun in fiscal year 1996 and has proven to be a valuable tool. The current statutory authority for this program expires in fiscal year 2002. By that time, we are hopeful that our efforts to increase Health Profession Scholarship Program allocations utilized by the Dental Corps will be successful and that program will become the basis to meet future recruitment needs.

Health Professions Loan Repayment Program.—This program was provided to us by the Fiscal Year 1997 National Defense Authorization Act. It provides for the repayment of loans utilized for professional education. It provided for \$22,000 per year of incurred obligation to a maximum of four years. Our experience with this program is limited to date, but we are optimistic that it will assist us. If there is a “downside” to this program, it is the fact that it is funded with monies which are available as a result of unexecuted Health Professions Scholarship Program allocations. One program has to be less than successful for this program to succeed. As we gain experience with this program we are initially limiting it to the recruitment of Dental officers.

The following economic incentives are in place to assist us in the recruitment of reserve component health professionals:

Education Loan Repayment Program.—Health Professions Officers Serving in Selected Reserve with Wartime Critical Medical Skill Shortages (10 USC, Sec 16302). The loan repayment currently pays \$3,000 per year up to a max of \$20,000 to certain shortage specialties for service in the Selected Reserve. Amounts have not kept up with the costs of schooling. The dollar amount should be increased so that it actually means something to a physician or dentist with many times that amount in loans. Suggested change is \$20,000 per year to a lifetime max of \$50,000. Also needing a change in language is the requirement that a person be fully qualified in his specialty to be eligible. We would like the law to allow participation by someone in training as well.

Special Pay.—Selected Reserve Health Care Professionals in Critically Short Wartime Specialties program (37 USC, Sec 302g) is currently being used as an accession program wherein practicing physicians and other healthcare professionals receive up to \$10,000 per year for a maximum of three years for participation in the Selected Reserve. This incentive is no longer appropriate given the increased chance of mobilization today. Active Component uses a tiered Multiyear Special Pay (MSP) for retention of certain health professionals. The law allows this reserve program to be used in a similar fashion and the Reserve Components would like to work toward that end.

Financial Assistance.—Health Care Professionals in Reserve Components program (10 USC, Sec 16201). The Financial Assistance Program (FAP) pays a stipend (~\$10,000/yr) to interns, residents, and some others in certain critical shortage specialties in return for future two-for-one obligation to the Selected Reserve. This program could be the best recruiting tool available to the Reserve Components by modifying the law to allow physician and dental students to participate (similar to the Active Component HPSP (10 USC, Sec 2121). The obligation is based on full years of participation. The program should be changed to allow six-month increments similar to several of the Active Component counterpart programs.

Another one of the invaluable tools assisting recruitment is the educational opportunities offered. In addition to attracting high quality applicants, graduates of the various programs have incurred an active duty service obligation which provides a level of stability to the force as a whole.

Currently, the following educational programs are being utilized to attract high quality individuals into military service:

Health Professions Scholarship Program.—This program provides the bedrock levels of accessions into various health disciplines. Currently, we are utilizing HPSP allocations to support entry level training for physicians, dentists, veterinarians, nurse anesthetists, optometrists, and clinical psychiatrists.

Financial Assistance Program.—This program enables us to “subsidize” individuals undergoing specialty level training within civilian institutions. At the present time, this program is being utilized to recruit physicians and dentists in specialties which directly effect force readiness.

Enlisted Commissioning Program.—Enlisted members already on active duty may compete for this program. It is designed for individuals who can complete a Bachelor

of Science in Nursing within two years. Upon completion of the academic requirements and licensure by the appropriate state, the individual is commissioned into the Nurse Corps. We find to this to be an extremely popular program providing excellent upward mobility to outstanding enlisted soldiers.

Physician Assistant Training Program.—This is another in service training program which provides us with highly trained health care providers. Currently, sixty active duty individuals are selected to undergo this two-year, tri-service course. We have in the past counted on this source to provide 100 percent of our requirements. In fiscal year 1999, we will attempt to directly recruit physician assistants. Our success in this venture will determine if additional measures are required to insure the force structure required in this critical readiness specialty is maintainable without additional incentives.

In addition to the specific programs mentioned above, we are also offering in service training programs for our Physical Therapists, Podiatrists, Pharmacists, and Dietitians.

Currently there are five Medical Corps Specialty pays authorized for payment under Title 37, USC. These are: Variable Specialty Pay; Board Certification Pay; Medical Additional Specialty Pay; Incentive Special Pay; and Multi-Year Special Pay. These pays obviously increase the economic incentive for our physician force to remain on active duty. The yearly adjustment of these rates by OSD (HA) to maintain parity among the services is a critical link in the entire retention process.

Non Physician Health Care Provider Board Certification Pay is provided to non-physician clinical specialties who have demonstrated clinical excellence by virtue of becoming Board Certified in their particular area of expertise. Again, this economic incentive aids in the retention of our clinical specialists.

Dental Officer currently receive three type of Special Pays. They are: Variable Special Pay; Dental Additional Special Pay; and Board Certification Pay. Additionally, the Fiscal Year 1998 National Defense Authorization Act has authorized the Dental Officer Multi Year Retention Bonus. Currently, we are working within the service process to insure funding is available to support this new initiative. Once funding is obtained, we are confident that this will assist us in the retention of our future dental leadership. We are currently offering, and have funded, a multi-year retention bonus for Oral Surgeons. Also, the Army has included in its POM submission funding for expansion of the multi-year retention bonus to all qualified Dental Corps officers.

USUHS

Question. The 1997 DOD Defense Reform Initiative mandates the USUHS remain open with one of you as Executive Agent. Was this transfer of management from Health Affairs to the Surgeons General a sound business decision for military medicine?

Answer. Yes. The decision to establish the Navy as the executive agent for the operation of the University is sound. The building is physically located on a Navy installation. All of the base operations support received will be "controllable" by one service. Placing the service Surgeons General in an oversight role of the University established to meet their needs is an excellent move. We feel that this will make the University more responsive to our individual and collective needs. This coupled with the fact that the University does not exhibit the same growth of costs to operate as the civilian counterparts, makes the outcome of the DRI with regard to the University a sound decision for us all.

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

MOBILE BREAST CARE CENTER

Question. General Blanck, I have been following a program by the Army Medical Research and Materiel Command called the Mobile Breast Care Center. The vehicle that other Senators and I toured here on Capitol Hill is filled with the latest digital mammography equipment, as well as a telemedicine capability. The idea is to give mammograms to populations of women who have traditionally been underserved, such as in the inner city, rural areas or remote military locations. At the same time, the telemedicine technologies incorporated in the vehicle are useful to ongoing DOD research. Last year the Defense Appropriations Bill contained language which urged the Army to continue this program.

General, does the Army have any plans to procure any more of these vehicles? I hope you look at procuring more than just the one demonstration vehicle, and then

moving forward with clinical trials. This technology is too important for military women—and all women—not to be properly tested.

Answer. In response to Congressional interest and last year's Defense Appropriations Bill, the Congressionally Directed Medical Research Program has included in its 1998 Breast Cancer Research Program Announcement language that encourages research proposals that test the optimization and efficacy of digital mobile mammography/mobile breast care centers to address the basic and clinical research needs of at-risk, underserved, rural, and urban communities, as well as active and retired military personnel and their beneficiaries. In the Program Announcement, investigators are advised that the Medical Research and Materiel Command has assembled a prototype digital mobile mammography vehicle, which is available for inspection during concept development of proposals and may be used for study. The Food and Drug Administration has not yet approved the use of digital mobile mammography vehicles, and the efficacy of such vehicles to address the needs of populations of women at risk for breast cancer still needs to be established through peer reviewed research.

As per Institute of Medicine recommendations, Strategies for Managing the Breast Cancer Research Program: A Report to the U.S. Army Medical Research and Materiel Command, proposals submitted in response to the fiscal year 1998 Announcement will undergo two levels of review to ensure both scientific excellence and program relevance. The first tier is a peer review of proposals against established criteria for determination of scientific merit. The second tier is a programmatic review of proposals that compares submissions to each other and recommends proposals for funding based on the program goals.

PERSONAL INFORMATION CARRIER [PIC]

Question. General Blanck, I also see in your statement that the Army is working with the other services on something called a Personal Information Carrier, or PIC. This is a sort of high-tech dog tag that will carry medical information about each soldier, thus helping to track and correct medical problems that may occur while a soldier is deployed. I have two questions about the PIC. First, how much data should a PIC be able to carry in order to maximize its medical effectiveness?

Answer. It is undetermined at this time how much should be stored on the PIC for maximal medical effectiveness. A chartered group of quad-service health care providers, the Theater Clinical Workgroup, has determined the essential requirements for the initial phase of the PIC. However, as enhanced automated medical systems get deployed to the field to support the requirements of H.R. 1119 (Force Health Protection), the PIC will need to expand to store and transport the new data produced by these systems. The maximum medical effectiveness of the PIC will be realized when the PIC includes all relevant information required to maintain a fit and healthy force.

Question. Second, I have heard that DOD plans to test the PIC in a 30,000-person deployment overseas. Is that effort funded in the President's budget request?

Answer. The fiscal year 1999 President's request included a command and control issue of the funding for PIC and another system called Preventive Health Care System (PHCS), which will be one of the major data sources for the PIC. PHCS will integrate data needed for force health protection, the pre and post force protection questionnaire information, immunization information, history and physical. It will be installed in all medical treatment facilities. The PIC was addressed as a high priority unfinanced requirement. Costs to develop and deploy 30,000 PICS were included in the budget projections. The total additional fiscal year 1999 funding for both the PIC and PHCS is \$32.1 million. At present, this remains unfunded in the President's Budget.

QUESTIONS SUBMITTED TO VICE ADM. HAROLD KOENIG

QUESTION SUBMITTED BY SENATOR ARLEN SPECTER

FREEZE-DRIED BLOOD

Question. The Navy has for many years been supporting research to develop a freeze-dried blood platelet product for the treatment of battlefield wounds. As you know, platelets are the blood cells critical for clotting and thus for stemming the loss of blood from battlefield wounds. The product being developed by the Navy in collaboration with the pharmaceutical industry would be a lightweight powder with a shelf life of 1–2 years (compared with the current short shelf-life of five days for liquid platelets).

What is your opinion of the development of such a product and do you agree it would enhance the quality and effectiveness of medical care in combat situations?

Answer. Yes, the development of freeze-dried blood would enhance the quality and effectiveness of medical care in combat situations. The development of functional freeze-dried blood products to treat combat casualties is an important R&D program for the military, particularly the Navy because of its remote, isolated, and afloat platforms. The development of improved blood product preservation and storage are key technologies because of blood product therapeutic importance in decreasing combat casualty hemorrhage and mortality. Currently, the availability of blood components and their shelf-life and storage capacities is severely limited and creates huge logistical burdens for delivery to remote locations.

Freeze-dried blood products, including red blood cell and platelets, will enhance medical readiness and support for warfighting requirements. Clear economic savings accrue because of the reduced need for replacement of expired blood products. The costs associated with providing blood products in the combat theater and aboard surface ships is a relatively significant component of medical support costs. In the relatively short Gulf War, approximately \$20 million was spent to maintain the blood inventory. The increasing costs of testing units of blood for safety would also be improved by extending the usable shelf-life for these tested transfusion units. Finally, the very real need for long-term storage capability is further demonstrated in providing the ability to meet blood requirement surge capacities during major combat contingencies.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

HEPATITIS C

Question. I am informed that Hepatitis C continues to be a public health threat and may be particularly alarming to the men and women of our military. Does the military have an accurate count of the number of active duty personnel infected with Hepatitis C?

Answer. No, at this time the military does not have an accurate count of the number of active duty personnel infected with Hepatitis C. It is assumed that the prevalence is the same as the civilian community.

Question. Does the military routinely screen active duty personnel, not just new recruits, for Hepatitis C in order to slow the progression of disease in infected personnel and to prevent the transmission of disease to other military personnel?

Answer. The Navy does not routinely screen recruits or active duty personnel for Hepatitis C. Hepatitis C positive individuals are identified during voluntary blood donations. The Navy has been screening its blood donors for Hepatitis C since 1990.

Question. I have been told that exit testing for Hepatitis C at the time of retirement or discharge is the only reliable method of detecting the presence of Hepatitis C infection to ensure the health and safety of the individual separating from the military. Does the Department test for Hepatitis C during the exit physical? If so, what specific tests are performed during the routine exit exam?

Answer. Hepatitis C testing is not routinely performed on individuals separating or retiring from the Navy or Marine Corps. Routine laboratory tests performed as a part of discharge or retirement physicals include a PPD (tuberculosis test), lipid profile (cholesterol test), RPR (syphilis test), and HIV determination. For individuals over the age of 50 years, a prostate specific antigen and stool for hemocult (blood in stool) are also performed.

ACUTE LUNG INJURY RESEARCH

Question. Admiral Koenig, in the past, Navy medical research and development programs have supported research efforts in acute lung injuries associated with combat trauma and massive hemorrhage, particularly the condition called Acute Respiratory Distress Syndrome at university centers. Does this remain a high priority research initiative for the Navy?

Answer. Yes, research efforts in acute lung injury remain a high priority initiative for the Navy. A number of potential combat injuries including battlefield wounds, extensive burns, hemorrhagic shock, sepsis, smoke inhalation, or exposure to agents used in biological or chemical warfare, often result in a clinical condition referred to as Acute Respiratory Distress Syndrome (ARDS). This condition is characterized by respiratory insufficiency, tissue hypoxemia, and multi-organ failure as a result of trauma and tissue ischemia or oxygen deprivation. The incidence of ARDS in the civilian population in the United States is estimated at 150,000 cases per year, and regardless of its etiology, ARDS has an associated mortality of 50-70 percent. His-

torically, more than 90 percent of combat casualties who die after evacuation from the battlefield had histological evidence of ARDS; those surviving for more than two to five days had a high incidence of pneumonia and alveolar hyaline membranes, and well known sequelae of ARDS.

Presently, there is no known cure for ARDS. A common mechanism that may explain the clinical manifestations of ARDS is excess production of free radicals by various lung and inflammatory cells. Current R&D efforts are developing novel mechanisms for antioxidant defenses to reduce the morbidity and mortality of ARDS, including specific drug and gene delivery to lung and other tissues to prevent the occurrence of ARDS complications. Researchers have identified new strategies for the enhancement of antioxidant defenses in both the lungs and systemic organs, thus limiting the catastrophic consequences of various combat traumatic injuries, sepsis, chemical/biological warfare agents, and various inflammatory agents in combatants and civilian personnel. These efforts will permit definitive preventive and treatment measures for combat trauma and massive hemorrhage associated with acute lung injuries, particularly acute respiratory distress syndrome (ARDS), and related complications.

The acute lung injury program strengthens collaborative research efforts between participating DOD research organizations and civilian institutions working to meet combat casualty care requirements. These efforts are recognized as high priority initiatives for the Navy. Principal performers and past collaborators include: University of Alabama, School of Medicine Birmingham, Alabama; and Uniformed Services University of the Health Sciences, Bethesda, Maryland.

Question. The Navy medical research and development organization should be commended for maintaining strong research efforts in combat casualty care that have produced life-saving measures in combat environments. Do the efforts in acute lung injury research represent a component of this research strategy to support casualty care life-saving and treatment initiatives?

Answer. Yes. Future Navy warfighting requirements have emphasized the need to limit the medical support footprint in theater and develop the capability to stabilize severely injured and hemorrhaging casualties with minimal on-site medical support assets. Navy medical research endeavors emphasize projects supporting far-forward care and delayed resuscitation procedures extending the classic "golden hour" to enable casualty evacuation and transport to fixed, stateside medical facilities for definitive surgical care and treatment.

The primary emphasis for these efforts is directed at casualty stabilization and sustainment modalities that permit a delay in resuscitative measures prior to definitive care and treatment. Current research and development efforts involve study of the therapeutic induction of a state of tolerance to temporary, severe to complete, systemic ischemia; i.e., protection from injury of the casualty during extended circulatory collapse and/or cardiac arrest beyond the "golden hour", followed by resuscitation to full recovery without brain or other vital organ damage, particularly acute lung injury to maintain essential respiratory functions upon full resuscitation.

These initiatives constitute a comprehensive strategy for saving the lives of future severely injured combat casualties, who have historically died from massive injuries, organ failure, and hemorrhage.

Question. Will this research have application to civilian trauma victim management?

Answer. Yes. The results of these initiatives can be applied to both combat-related trauma victims as well as emergency cases presenting to a major civilian trauma center.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

MEDICAL READINESS

Question. An important issue of concern is the shortage of provider specialties, dentist and physicians. What types of incentives are you implementing to actively recruit and retain these providers?

Answer. Several initiatives have been taken to improve recruiting/retention effectiveness within the Medical and Dental Corps. Recruitment/retention goals for non-physician providers in the Nurse Corps and Medical Service Corps are currently being met.

Medical corps

Field recruiting efforts are focusing on key specialties, rather than diffusing efforts over several specialties. In fiscal year 1996, Navy Medicine recruited for direct accessions in 14 specialties. The staffing needs in many of these specialties were

small. Navy Recruiting Command suggested improved recruiter effectiveness could be gained by focusing efforts on key requirements. Thus in fiscal year 1998, we recruit for direct accessions in just five specialties.

The Financial Assistance Program (FAP), a stipend program, when applied to physicians in residency training has proved successful. In addition, the FAP incurs longer obligated service than direct accessions, reducing attrition. Unlike student scholarships, this program can be focused on key specialties. Currently 50 percent of available funds are devoted to three key shortage areas: family practice, general surgery, and orthopedic surgery.

The Loan Repayment Program (LRP) is a new program authorized for implementation in 1998. This program will further expand the breadth of the potential market in which we compete by providing medical school loan repayment for physicians at the end of residency training. It can also be focused on key specialties, and is expected to further assist correction of manning shortfalls.

In an effort to reduce the family dislocation resulting from operational assignments, a "homeporting" concept is being utilized. Physicians completing training in a large homeport area are assigned to an operational unit based in that homeport, and upon completion of the operational assignment can often be reassigned to a medical facility in the same homeport location. Thus, families are not required to move from their home or school. Medical Corps assignment officers estimate that 90 percent of operational assignments are now made in this fashion.

Naval Recruiting Command conducted focus groups in 1997-1998 which revealed previously unrecognized misconceptions held by young physicians regarding Navy physician quality of life as compared with other services. The results of these focus groups formed the basis of the 1998 physician marketing plan, including a physician recruiting video. This video has been very effective at capturing the attention and addressing the concerns and misconceptions of potential physician candidates. Other marketing media now in use likewise more effectively address the interests of today's young physicians.

Continued attention to reducing the civilian-military pay gap, focusing financial aid programs on key specialties, precise marketing guided by focus groups, and reducing family dislocation will steadily reduce manpower shortages.

Dental corps

In 1995 the Chief of the Navy Dental Corps with the support of the Surgeon General and in concert with the Bureau of Naval Personnel and Navy Recruiting Command developed a 10-point action plan to restabilize the Navy Dental Corps. The program consisted of legislative action to increase dental special pays to make the Navy Dental Corps competitive with the civilian market; to offer a \$30,000 accession bonus to allow new dentists to pay educational loans; and to offer medical loan repayment for dental school loans. Promotion incentives; Navy Recruiting Command's primary focus on general dentists; initiation of student financial incentives through scholarships and other educational incentive programs; the expansion of post-graduate training opportunities for recent graduates, and the production of a dental recruiting video are also underway.

Navy Recruiting Command conducted focus groups in 1995 which revealed previously unrecognized misconceptions held by dentists regarding military dentistry in general; Navy compared to other services, and that of the civilian sector; and, addressed quality of life concerns. A video was prepared both addressing these concerns and targeting the 40 percent female market in dental schools. This video was mailed to dental students and recent graduates in fiscal year 1998 and has been very effective at capturing the attention of young dentists and addressing common misperceptions of military service.

The Navy Dental Corps through the 10 Point Program seems to have stabilized. Scholarships, other financial incentives, the accession bonus and the dental video seem to have cured the accession problem.

USUHS

Question. The DOD Defense Reform Initiatives mandates that USUHS remain open with one of you as Executive Agent. Was this transfer of management from Health Affairs to the Surgeons General a sound business decision for military medicine?

Answer. The Defense Reform Initiative placed oversight of USUHS under the collective management of the Services Surgeons General. The Navy has been appointed executive agent for program, budget, and funding execution responsibilities for USUHS. By moving direct oversight to the Surgeons General, the transfer moves management of the university closer to the customers and assures continuation of responsiveness to Service requirements. The added benefit is that the middleman

is removed from the management process, thus making savings possible on the DOD staff.

WOMEN'S HEALTH RESEARCH

Question. Do you see a need for focused research in military women's health issues?

Answer. Yes, I think we need focused research in military women's health issues. Approximately 340,000 women, 14 percent of the total active duty personnel and 16 percent of reservists, serve in the Armed Forces. Military women are generally young, healthy and fit. However, from basic training to deployment in combat, military women experience physical stresses that may include overuse injuries and exposure to environmental extremes, as well as the need to cope with military equipment, clothing and procedures designed largely for men. Research is needed to focus on how these stresses may affect the female physical condition and factors that can prevent short-term and long-term injuries and illnesses which may be peculiar to women. For example, as we have deployed increasing numbers of women on ships over the past few years, we have recognized the need for a longitudinal study of the effects of ship board living and working conditions on the health of pregnant women and the short-term and long-term effects of these stresses on their unborn children.

Question. What is the current status of the DWHRP and what is needed in terms of funding for the next fiscal year?

Answer. Current proposed Women's Health Research Studies in the Department of the Navy submitted by Bureau of Medicine and Surgery (BUMED), Office of Naval Research (ONR), Naval Health Research Center (NHRC), Center for Naval Analysis (CNA), and Naval Air Warfare Center (NAWC) include:

Priority: 1

Longitudinal Study of Pregnancy Outcomes in Navy Women Serving Aboard Ship and Ashore. Cooperative study with Naval Health Research Center designed in response to recommendations of the Standing Committee on Military and Civilian women in the Department of the Navy three year study; total funding: \$1.065 million (\$355,000/year).

Priority: 2

Development and Refinement of Interventions to Reduce Unplanned Pregnancy in Navy and Marine Corps Women. Two year study; total funding: \$440,000 (\$220,000/year).

Priority: 3a

Occupational Fitness of Active Duty Women for Sustained Operations. Three year study; total funding: \$450,000 (\$150,000/year).

Priority: 3b

Dynamic Strength Capability of Women in High Performance Flight Tasks. Three year study; total funding: \$900,000 (\$300,000/year).

Priority: 4

Gender Norming Human Factors for the Next Generation Ships and Equipment. Five year study; total funding: \$1.5 million (\$300,000/year).

Priority: 5a

Premilitary History of Sexual Assault and Active Duty Revictimization and Resulting Health Care Utilization. Three year study; total funding: \$2.4 million (\$800,000/year).

Priority: 5b

Relationship Between Active Duty Women Premilitary Maltreatment History and Health Care Utilization. Three year study; total funding: \$2.4 million (\$800,000/year).

Priority: 5c

The Relationship Between Post Traumatic Stress Disorder Symptomology and Occupational Performance and Attrition in Active Duty Women. Three year study; total funding: \$2.4 million (\$800,000/year).

Priority: 6

The Effects of Maternal Absence on Child Development, Health Care Utilization, and Operational Readiness. Two year study; total funding: \$500,000 (\$250,000/year).

Priority: 7

Pregnancy, Physical Fitness, and Force Medical Protection: A Pre and Post Natal Exercise Model for Active Duty Navy and Marine Corps Women. Two year study; total funding: \$400,000 (\$200,000/year).

Priority: 8

The Development of a Safe and Effective Exercise Curriculum to Reduce Musculoskeletal Injury in Navy and Marine Female Training Populations/Operational Communities. Two year study; total funding: \$500,000 (\$250,000/year).

Priority: 9

Establishment of a Registry of Birth Defects in Offspring of Active Duty Women. Ongoing registry; total funding: \$250,000/year.

Priority: 10

Medical Care of American Women in OCONUS Host Nation Medical Systems. Cooperative study with George Mason University. Two year study; total funding: \$180,000 (\$90,000/year).

Priority: 11a

Self Esteem of Active Duty Navy and Marine Corps Women and Relationship to Medical Force Protection. Three year study; total funding: \$450,000 (\$150,000/year).

Priority: 11b

Shipboard Health of Active Duty Women in the Navy and Marine Corps. Three year study; total funding: \$1.5 million (\$500,000/year).

Priority: 11c

Health, Wellbeing, and Health Care Delivery Services Available to Women Aboard Ship. Three year study; total funding: \$1.5 million (\$500,000/year).

Priority: 12

Application and Assessment of Urine Based Screening for Chlamydia in Navy and Marine Corps Women. Two year study; total funding: \$300,000 (\$150,000/year).

Priority: 13

Gender Differences in Immune Defense Mechanisms: Potential Application to the Management of Combat Associated Major Trauma. Three year study; total funding: \$750,000 (\$250,000/year).

Priority: 14

The Effectiveness of Telemedicine Consultation in Assessing Gynecological Disease. Three year study; total funding: \$750,000 (\$250,000/year).

Priority: 15

The Knowledge Base of Active Duty Navy and Marine Corps Women Concerning Health Promotion and Disease Prevention Behaviors. One year study; total funding: \$50,000 (\$50,000/year).

Priority: 16

Continuation of Defense Medical Epidemiological Database Development. One year study; total funding: \$100,000 (\$100,000/year).

Priority: 17

Mixed Gender Value Added Tactical Decision Making Under Stress. Three year study; total funding: \$750,000 (\$250,000/year).

Priority: 18

Gender Comparison of Suicide Risk and Adverse Psychological Response Assessment in the U.S. Navy. Two year study; total funding: \$280,000 (\$140,000/year).

Priority: 19

Gender Differences in Response to Cold Stress. Two year study; total funding: \$500,000 (\$250,000/year).

Priority: 20

Female Physiological Heat Exposure Limits (PHEL). Two year study; total funding: \$1.2 million (\$600,000/year).

Priority: 21

Tri-Service Hospitalization Rate Comparison for Female Specific Disease. Two year study; total funding: \$400,000 (\$200,000/year).

Priority: 22

Anthropomorphic Measures as Indicators of Body Fat Change. One year study; total funding: \$100,500 (\$100,500/year).

Priority: 23

The Health Status of Repatriated Female Prisoners of War/Torture Survivors. One year study; total funding: \$100,000 (\$100,000/year).

Proposed future studies addressing successful integration of women aboard submarines are: Gender difference in response to potential toxic atmospheric contaminants or radiation exposures that may occur during submarine duty; Women on submarines-health issues; Psychological predictors of attrition; and Psychological predictors of successful integration of women aboard submarines.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

CENTER FOR NAVAL ANALYSIS [CNA] FEHBP-65/EXPANSION OF MAIL ORDER PHARMACY STUDY

Question. At page 14 of your remarks, you refer to a Center for Naval Analysis study being performed on the subject of FEHBP-65 for retirees, as well as on the subject of expanding the mail order pharmacy to retirees. You also state that the studies are expected to be completed later this year. Do you have a specific date when these studies would be available to this committee?

Answer. A draft of the CNA study regarding the feasibility of FEHBP-65 and expansion of the Mail Order Pharmacy will be sent to the sponsor, Principal Deputy Assistant Secretary of the Navy (Manpower and Reserve Affairs), on May 31, 1998. The final report will be published on September 30, 1998.

Question. What is the current status of those studies?

Answer. The CNA study is ongoing and currently in the analysis phase.

Question. Is there any doubt of what the outcome will be?

Answer. Currently CNA only has preliminary cost estimates, which may change with further analysis.

Question. Isn't the only solution to the problem of availability and affordability of health care for retirees over 65 to allow them to enter the Federal Employees Health Benefits Program?

Answer. CNA is examining the cost effectiveness of a range of options for beneficiaries over 65. These options include a pharmacy benefit, some form of Medigap coverage, along with the Federal Employee Health Benefits Program.

Question. What about the problem of billings and payments; is the Navy getting any complaints? If so, are these complaints being taken at face value, with solutions being sought and implemented?

Answer. Yes, the Navy has received complaints regarding balance billing and civilian provider reimbursement.

The current "balance billing" system is a major irritant and financial problem for many of our beneficiaries. Under the present system, providers who "participate" in CHAMPUS (now TRICARE) agree to accept the CHAMPUS Maximum Allowable Charge (CMAC), cost-shared between the government and patient, as payment in full. However, providers who do not "participate" receive the CMAC payment, but may also bill their patient for an amount not to exceed 115 percent of CMAC. In addition, non-institutional providers (ambulances, clinical laboratories, etc.) are currently exempt from CMAC limits. Bills from these providers are fully payable and the patient is responsible for the co-payment and any remaining balance exceeding the government CMAC.

OASD(HA) is presently working on implementing the provision in the Fiscal Year 1996 Authorization Act to remove the 115 percent limit exclusion for non-institutional providers. This provision will limit the financial liability of the TRICARE Standard user to normal co-payments and 15 percent above CMAC. Navy Medicine has stressed that once language is implemented, policy needs to be retroactive to date Fiscal Year 1996 Authorization Act was signed into law. The fiscal year 1997 and fiscal year 1998 Authorization Acts have also enacted provisions that will cover all bills for TRICARE Prime enrollees above the TRICARE Prime fees. These provisions will remove the possibility of the patient being billed for services above the TRICARE Prime user fee. Both initiatives are scheduled to begin Spring 1998.

Prompt civilian provider reimbursement is another issue being addressed. Civilian providers customarily submit claims for payment to a fiscal intermediary who processes the claim. These claims are on behalf of TRICARE Prime, Extra and Standard patients. Prompt payment ensures satisfaction by the provider community. However, delayed payment aggravates the provider who may consider dropping out of a TRICARE network, refusing to see further TRICARE patients, and/or passing the bill to the patient for complete payment.

The current DOD contract standard for claims processing is 75 percent of all claims being paid within 21 days. This standard is being achieved and often exceeded, however Navy Medicine believes this standard is too low and should be raised. Aside from cases when the contractor fails to meet the standard, the fact that one out of four claims need not be paid is unsatisfactory given today's technology and adjudication processes. TRICARE Standard providers incur the most delays in payment, while contractors focus on paying their network providers first.

OASD(HA) is acutely aware of this issue and has worked hard with the TRICARE contractors to improve performance when it falls below standard. OASD(HA) also plans to set a new standard for claims processing to 100 percent within 14 days in the next generation of TRICARE contracts.

QUESTIONS SUBMITTED TO LT. GEN. CHARLES H. ROADMAN II

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

HEPATITIS C

Question. I am informed that Hepatitis C continues to be a public health threat and may be particularly alarming to the men and women of our military. Does the military have an accurate count of the number of active duty personnel infected with Hepatitis C?

Answer. Hepatitis C virus (HCV) is a single-stranded RNA virus transmitted almost exclusively by blood or blood products. It is possibly transmitted by sexual contact, but efficiency of transmission is exceedingly low. Hepatitis C infection is a significant problem in the United States, and is usually a chronic illness without symptoms until late in its course. It is close second to chronic alcoholism as the cause of cirrhosis, end-stage liver disease, and a hepatocellular carcinoma in the United States. Available treatments are expensive and are only curative in 15 to 25 percent of cases; therefore, primary disease prevention is key.

Literature shows that in the United States, there are approximately 3.5 million carriers of the Hepatitis C virus. The significance of HCV infection in the Air Force is low. Among blood donors in Air Force medical treatment facilities in 1996, prevalence of HCV by repeat-positive enzyme immunoassay was 0.27 percent. The Air Force Reportable Events Surveillance System (AFRESS) shows 47 cases of HCV among active duty personnel in 1996 (0.012 percent), four of whom were health care workers but only one of whom was involved in direct patient care. In 1997, AFRESS reported a total of 44 active duty cases of HCV.

Question. Does the military routinely screen active duty personnel, not just new recruits, for Hepatitis C in order to slow the progression of disease in infected personnel and to prevent the transmission of disease to other military personnel?

Answer. The risk in the Air Force is very low for Hepatitis C infection, therefore the level of risk does not warrant routine screening of the general Air Force population.

Question. I have been told that exit testing for Hepatitis C at the time of retirement or discharge is the only reliable method of detecting the presence of Hepatitis C infection to ensure the health and safety of the individual separating from the military. Does the Department test for Hepatitis C during the exit physical? If so, what specific test are performed during the routine exit exam?

Answer. The Air Force does not test for Hepatitis C during exit physicals. No major public health authorities recommend routine screening for Hepatitis C. Additionally, current treatment of cases has not significantly improved outcomes, and current screening tests have relatively high false positive rates.

Intravenous drug abuse is the major risk factor in the nation for acquiring Hepatitis C. The Air Force's aggressive entrance and random screening for drug abuse is the most effective method to minimize the incidence and prevalence of Hepatitis C in the military population (i.e., controlling the behavior that puts one at risk for acquiring the disease). Again, from all available evidence, Hepatitis C does not appear to be a major public health threat in the United States or in the U.S. military population.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

MEDICAL READINESS

Question. An important readiness issue is the shortage of provider specialties, dentists and physician's assistants. What types of incentives are you implementing to actively recruit and retain these providers?

Answer.

Provider specialties:

Recruiting.—For short-term immediate needs, our primary accession tool is direct recruiting from civilian sources. Recruiting produces accessions in the current year. Over the past six year period, recruiting services attained over 80 percent of their physician recruiting goal. The desire is to reduce reliance on recruiting and focus on sponsored accessions through various scholarship programs, which select high quality candidates from a very competitive selection process.

Retention.—Retention varies by specialty; but overall retention has remained stable and predictable. The anticipated losses are replaced by new accessions. Most physician accessions enter the Air Force because of an active duty service commitment resulting from sponsored training. Most common forms of sponsorship are the Health Professions Scholarship Program (HPSP), the Financial Assistance Program (FAP), or the Uniformed Services University of the Health Sciences (USUHS). Sponsorship is our principal sustainment pipeline which is programmed years in advance prior to the actual year of accession. Annual incentive special pay contracts are one of the tools we use to motivate physicians to remain in the Air Force. These pay amounts are determined annually by a DOD Flag Officer review board and consider staffing levels as well as comparable salaries for civilian physicians in similar specialties. Additionally, opportunities for senior leadership positions are used as retention incentives.

Dentists:

Recruiting.—The new \$30,000 dental accession bonus is an incentive motivating new accessions to enter for four years vice three. Additionally, we increased our level of Health Professions Scholarships for dentists to sponsor high quality candidates in dental school which relieves some of the burden from Recruiting Services.

Retention.—Existing special pays for dental officers have increased for the first time since 1981. The increases affected both junior and senior officers, and is expected to improve retention noticeably. Additionally, the new Multi-Year Special Pay (MSP) will enhance retention. It will offer an incentive for dental officers to remain on active duty for contractual periods ranging from two to four years. The amounts will vary by specialty and length of the contractual obligation. Furthermore, active duty Graduate Medical Education offers advanced dental training (often in active duty programs) for general dentists to become specialists. This is also a retention tool as dentists become trained in a specialty and incur a training obligation. Finally, board certification pay offers incentives to advance their personal standing in the dental profession.

Physician assistants:

Recruiting.—Although we have been successful in recruiting direct accessions, the volume necessary for sustainment is mostly generated from an active duty two-year educational program which commissions highly qualified, and very competitively selected, enlisted personnel. This is a highly successful program, and one which is a great incentive to our enlisted force to become a commissioned officer.

Retention.—It appears that the incentive is to serve as a commissioned officer for at least 10 years, so Physician Assistants can retire with the benefits of an officer rather than their prior enlisted grade. Approximately 95 percent of Physician Assistants in the Air Force (397 of 418 per the September 30, 1997 database) had some form of prior service. Almost half of those Physician Assistants with prior service had served over 10 years as a commissioned officer (186 of the 397 officers).

USUHS

Question. The 1997 DOD Defense Reform Initiative mandates that USUHS remain open with one of you as Executive Agent. Was this transfer in management a sound business decision for military medicine?

Answer. The Air Force agrees with the concept of unifying the administration of Graduate Medical Education under USUHS with executive agent oversight. This unification would enhance economies of scale, encourage resource sharing and joint planning, and standardize monitoring and oversight using a common database. However, we need to further define goals and objectives that will drive the types

of resources, personnel and budget required in the unified office at USUHS and where they would come from.

In the short term, there are no cost savings realized by the Air Force, but in the long term, this joint venture will allow us to more effectively meet force management demands and training requirements.

TELEHEALTH

Question. How has nursing interfaced with telemedicine/telehealth?

Answer. As the primary aeromedical evacuation (AE) mission operators, flight nurses and aeromedical evacuation technicians (AET's) have been pivotal in the pursuit of telemedicine in AE. Due to severe limitations in our present aeromedical communication systems, it is almost impossible to relay important information from the flight nurse in the air to the physician on the ground. This has always been an extreme frustration for flight nurses and AET's as they provide care at 40,000 feet and 4–6 hours flying time from the closest medical treatment facility. This can be an extremely prolonged time when a patient's condition deteriorates and the nurses need immediate and clear consultation with a physician. Telemedicine can provide real-time communication for health care professionals and improve medical capabilities essential in our quest for quality care to battlefield soldiers anywhere, anytime. Almost two years ago, the Air Force stood up the first DOD working group to establish an Aeromedical Evacuation Strategic Plan for the insertion of telemedicine into the aeromedical environment.

As the champion for this effort, the Air Force Medical Service brought 45 participants from all walks of the DOD telemedicine and user communities together in May 1996. Of this group, one-third were Total Nursing Force personnel: active duty, Reserve, and Air National Guard personnel. They developed the strategic plan and the operational demonstration. They initiated a Breakthrough Area to architect and implement a proof of concept demonstration to document the need for telecommunication from ground to air to ground. With our current operations of transporting more critical patient loads during peacetime and contingency operation missions, this communications capability is vital to safe quality patient care. The operational demonstration was conducted from September 22–27, 1997, and involved "live" channel AE missions using C-141, C-9, and C-130 airframes for a total of 70.6 flying hours. This demonstration used commercial off-the-shelf computer systems and applications in addition to existing airframe communication systems. We were able to validate the use of e-mail and "chat" to and from the aircraft to ground AE command and control elements. The flight nurses and AET's on the team were impressed with the enhanced communication capability demonstrated by the test. We are excited and energized by the successes and lessons learned. We are now working toward our Phase II proof of concept demonstration in the Pacific Air Forces Theater.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

TRICARE

Question. It is my understanding that the transition to Tricare has gone quite smoothly in North Dakota. There has been some question as to why dependents must re-enroll on an annual basis, once they are enrolled in "Tricare Prime." Can you explain why this is necessary?

Answer. The lack of automatic reenrollment into TRICARE Prime has been an active concern of the Air Force and Department of Defense. The TRICARE Management Activity is pursuing regulatory, contract and program actions necessary to establish continuous enrollment. This will allow family members who enroll in Prime to remain enrolled until they elect to disenroll or lose their eligibility. As early as this summer, Prime will automatically re-enroll users who live in the 40-mile "catchment areas" unless they elect to end participation or become ineligible. According to surveys, we know the vast majority of our Prime enrollees, about 90 percent, are satisfied with the program.

Question. What is the status of billings and payments in the Air Force portion of the Tricare program?

Answer. Each of the regions has experienced claims processing problems as health care delivery was initiated. This difficulty in meeting the claims processing standards listed in the Managed Care Support Contracts resulted from larger than anticipated enrollments and claims submissions. The TRICARE Management Activity and the Lead Agent closely monitor the claims processing on a monthly basis. The contracts also contain quarterly positive and negative incentive clauses that are auto-

matically implemented when thresholds are reached. At the moment, close to 80 percent of claims are processed within 21 days.

Question. Are there complaints being received from Tricare contractors?

Answer. Yes. The most often heard complaint from contractors is that the requirements in the current Managed Care Support Contracts are much too voluminous, prescriptive and inflexible. The contractors believe this hamstrings them and prevents them from employing their best commercial practices. The next generation of Managed Care Support Contracts under development are substantially smaller in volume, significantly less restrictive and expressly encourage best commercial practices. During development of these new contracts, industry officials were invited to review the proposed requirements and offer suggestions based on their private sector experience.

Question. Is the Air Force experiencing any problems with medical providers being reluctant to continue providing services because of failure of the Tricare system to promptly pay bills submitted?

Answer. Yes. There have been a few instances where civilian providers have expressed frustration with untimely claims payments and the cumbersome system used to process claims. The TRICARE Management Activity and Lead Agents have worked hard to reduce the administrative impediments associated with claims processing. As a result, claims processing currently exceeds the current contract requirements.

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NURSE CORPS

STATEMENT OF BRIG. GEN. LINDA J. STIERLE, DIRECTOR OF MEDICAL READINESS AND NURSING SERVICES, OFFICE OF THE SURGEON GENERAL, DEPARTMENT OF THE AIR FORCE

OPENING STATEMENT

Senator STEVENS. We are going to now go to a second panel, the Chiefs of the Nurse Corps. We want to welcome Brig. Gen. Bettye Simmons, the Chief of the Army Nurse Corps; Capt. Mary Anne Gardner, the Deputy Director of the Navy Nurse Corps; Brig. Gen. Linda Stierle, Director of Medical Readiness Doctrine and Planning and Nursing Services for the Air Force.

The two of us know a lot about nurses. We have seen a lot of them from beds. I want you to know we respect what you do. Your health care professionalism does not go unnoticed by the Congress. This committee in particular appreciates the dedication and the high professionalism that military nurses bring to their jobs.

Your statements have all been filed in the record, as I said in the last panel, and I want to give my good friend and your good friend, Senator Inouye, an opportunity to make opening remarks first.

Senator INOUE. I wish to join you, Mr. Chairman, in welcoming General Simmons, General Stierle, and Captain Gardner. It has been my pleasure to work with military nurses for many years, and I thank you once again for the 60 years of help and assistance.

I understand, Captain, that this is your last appearance as Deputy Director of the Navy Nurses Corps.

Captain GARDNER. Yes, sir, it is.

Senator INOUE. I would like to take this opportunity to thank you for your outstanding service. I wish you the very best.

Captain GARDNER. Thank you very much.

Senator INOUE. I also would like to take a few moments to congratulate the Nurse Corps for recent landmark achievements. In the Navy, Rear Admiral Engel was promoted to a second star in the fall of 1997. In the Army, Brig. Gen. Nancy Adams, former Chief of the Army Nurse Corps, was nominated for a second star and she just assumed command of Tripler Army Medical Center on March 17, making her the first Army nurse to command a major medical center. I am looking forward to the Air Force to be able to give similar reports soon.

We have worked long and hard for the statutory change which allowed Nurse Corps officers to compete for senior corps in material positions.

Advanced practices nurses must often fight for the very existence when they are placed in competition with other health care professionals as the most economical providers of primary care. A recent example is the present controversy between anesthesiologists and certified nurse anesthetists. The Health Care Financing Adminis-

tration has proposed a rule to remove the Medicare requirement for supervision of nurse anesthetists by anesthesiologists, and I am certain all of us have noted the resistance to this rule from the medical community. However, I am pleased that it has not been the case within the military health system.

Nurse anesthetists are clearly proving themselves as independent practitioners both in peacetime and during conflicts. I believe that at the present time the nurse anesthetists throughout the United States provide at least 85 percent of the anesthetics.

Military nurses have often led the way in creating new and expanded roles for nurses, but the core of nursing care and concern for the individual remains constant. This combination has enabled the services to provide health care throughout the world, on land, at sea, and in the air.

As the military health system again leads the way in the development and implementation of health care delivery models, the military nurses will be at the forefront in developing innovative ways to reduce health care costs and to continue to provide quality care.

So, I appreciate the appearance of all of you this morning and look forward to hearing more about the progress of the corps in terms of readiness, research, the graduate school of nursing, and telehealth.

Thank you, Mr. Chairman.

OVERVIEW OF NURSING IN THE AIR FORCE

Senator STEVENS. Thank you.

We started from the left before. We will start from the right this time. Let us go with the Air Force first this time.

General STIERLE. All right, sir.

Mr. Chairman and Senator Inouye, it is an honor to report on the achievements of Air Force nursing. Thanks to your ongoing endorsement and our determination, we continue to be a vital player in the Air Force Medical Service.

I have submitted my written testimony for the record and will now highlight some of our successes.

First, I am encouraged by the increasing leadership opportunities for nurses in the Air Force Medical Service. The percentage of medical groups commanded by nurses steadily progressed from 5 percent to 16 percent over the past 3 years.

After we reorganized into squadrons in 1994, squadron commander positions filled by nurses dipped from 16 percent to 13 percent in 1996. I am pleased to report the most current statistics on these squadron commander positions indicate a rebound back up to 16 percent.

Not forgetting the Air Reserve component, the Air National Guard has 12 percent presently of the medical units with nurse commanders, and the Air Force Reserve Command has 36 percent. We anticipate continued progress on filling active and reserve senior positions as more nurses are competitively selected and successfully meet the challenges of command.

Now I would like to spotlight some of the successful disease and population health management initiatives. Medical commanders have capitalized on nursing's expertise and have developed nurse-

run clinics. Typically these clinics focus on case management, patient education, followup, and coordination of services. The medical groups at Patrick AFB, FL, and Grand Forks AFB, ND, have expanded their nurse-run clinics to manage women's preventive health services. Nurses in primary care triage services manage acute appointments, referral processes, and provide self-and home care advice. The triage service at Offutt Air Force Base in Nebraska responded to 266 patient calls per day with home care advice sufficient for 14 percent of the callers.

Also the medical groups at Barksdale AFB, LA; Travis AFB, CA; and Eielson AFB, AK, reassigned nursing personnel to manage medical specialty consultation process. Their clinical understanding of primary care changed the historically bumpy consultation system into a smoother process with fewer delays and referral appointments and more reliable provider followup.

Across the board, nurses and medical technicians have played a pivotal role in converting inpatient medical units to 23-hour ambulatory procedure units. These units provide nursing care services to patients on an outpatient basis and are excellent examples of customer convenience and quality care.

Mr. Chairman, I am proud to say that Nursing Services has often provided the vision and the tenacity to move all of these programs forward. The total nursing force has been integral in improving medical force protection programs, aeromedical evacuation operations, and advanced trauma education. Our support of sustainment operations, humanitarian assistance, and disaster relief missions around the world directly keeps the wartime skills of our nurses and medical technicians honed while assisting those in need.

The partnership between the active, the Reserve, and the Guard nursing forces has never been better. I credit our success with the development of our first total nursing force strategic plan.

One of the best examples of our enhanced working relationship is a program called TopSTAR, a medical readiness training program using state-of-the-art mannequins and computer-based instruction. In 2 weeks, students complete 100 percent of their sustainment training that was previously spread out over 1 to 4 years. With the significant reduction of Air Force hospitals, it will be increasingly more difficult to meet clinical training requirements for the active and the Reserve components. We hope to expand TopSTAR from the first training platform at Wilford Hall Medical Center to more sites in the coming years.

Accession and recruiting efforts remained in the forefront also in 1997. In recent years, we have had an ample supply of entry level, novice nurses. In order to enhance our force structure with clinically experienced and specialty nurses, we have redirected the nurse accession bonus policy to incentivize these more difficult recruitment categories.

A recruitment initiative, that I described in last year's testimony, was the cadet BSM to MSM program, and I am pleased to report that the Air Force Academy has scholarships for cadets to attend nursing school. In the fall of 1997, two cadets entered Vanderbilt University, and starting with the class of 1998, up to five cadets annually will have the opportunity to attend nursing schools.

Another resounding recruitment success story is the commissioning of airmen who have completed a bachelors of science degree in nursing and we have targeted 10 allocations per year but hope to see this increase over time because we are committed to retaining these stellar individuals as Nurse Corps officers.

Now I would like to recognize the cost savings and outstanding joint training offered by the Uniformed Services University of Health Sciences, the family nurse practitioner program, and the certified registered nurse anesthetist program. We have seen an increased demand for FNP's in our peacetime health care delivery system and recently validated wartime requirements for FNP's in our mid-level provider deployment taskings. Our CRNA's continue to provide critical wartime skills and the majority of peacetime anesthesia services. After 45 years, we closed the Air Force CRNA training program. We found the USUHS program to be strong and have assigned all Air Force CRNA students to USUHS. By incorporating Air Force CRNA faculty and training into USUHS, we saved approximately \$300,000 in civilian contract costs.

I have continually been impressed by the value that nurses place on advanced technologies and educational opportunities. We maintain a dynamic nursing home page, offering worldwide access to our strategic plan, our newsletter, the nursing research corner, and professional development opportunities. We developed a distance learning guide as a ready reference to courses and programs that give our nursing personnel the opportunity to advance their education. The USUHS Graduate School of Nursing offers an innovative distance learning program affording geographically separated nurses avenues to pursue advanced degrees.

Foremost, though, I want to thank Congress for the continued backing for the tri-service nursing research program. Air Force nursing is generating lines of research aimed at issues critical to military and civilian health care delivery. Our clinical investigation sites, staffed with a doctoral prepared nurse, have spearheaded our efforts to educate our nursing personnel and to improve practice through research validated results.

In closing, I feel a great sense of pride and accomplishment as the Corps Chief of such an extraordinary group of officer and enlisted nursing professionals. I can say with absolute certainty that Air Force nursing personnel are ready, willing, and able to protect our forces, protect our national interests, and advance democracy and freedom anytime anywhere.

PREPARED STATEMENT

Mr. Chairman and Senator, thank you for providing us this forum to showcase military nursing. We appreciate your support in behalf of the Department of Defense, the Air Force Medical Service, and the patients we serve.

Senator STEVENS. Thank you very much, General.
[The statement follows:]

PREPARED STATEMENT OF BRIG. GEN. LINDA J. STIERLE

Mister Chairman and members of the committee, it is an honor to report on the achievements of the Air Force Nurse Corps (AFNC) since my testimony in April of 1997. Thanks to your ongoing endorsement and our determination, the AFNC con-

tinues to be a vital player in the Air Force Medical Service (AFMS). As reported in my testimonies over the past three years, we developed the first-ever Total Nursing Force Strategic Plan (TNFSP), outlining the future directions of nursing personnel in the Air Force. This nursing strategic plan stands apart from previous plans as it is the first time the Total Nursing Force (TNF), officer and enlisted, active duty, reserve and guard, collaborated on a shared vision, mission, goals and objectives.

The TNFSP links directly to the AFMS strategic initiatives and in a broader perspective, correlates with the strategic plan of the Military Health System (MHS). This strategic plan presently has six goals. The goals are (1) Cultivate, Identify and Advance Strong Leaders, (2) Spearhead Customer-Driven Nursing Practice, (3) Forge Ahead as a Full Partner in the AFMS Building Healthy Communities, (4) Champion an Integrated Ready Force, (5) Effectively Use AF Nursing Resources, and (6) Employ and Integrate Technology and Research. These goals will help us reach our vision of Air Force Nursing as an integrated force committed to maximum readiness and customer-focused practice.

Goal No. 1: Cultivate, Identify and Advance Strong Leaders:

Goal statement.—Optimize nursing leadership to meet mission challenges of the 21st century.

Command Opportunities

I am encouraged by the leadership opportunities for Nurse Corps (NC) officers in the AFMS. It is my opinion that a NC officer in a medical group or squadron commander position brings a customer-focused orientation to the organization. Nurses have the distinct advantage of understanding all the disciplines. By virtue of providing specialty services to patients after duty hours or coordinating the delivery of those services, nurses have a diverse blend of clinical expertise, managerial experience, and interpersonal skills. Nurses are perceived to be the strongest patient advocate by the patients themselves. The majority of nurses start out as generalists caring for our beneficiaries in our bedded facilities, 24 hours a day, 7 days a week, 365 days a year. In addition, I believe advanced academic degrees serve to strengthen their qualifications for command roles. Thus, robusting the number of NC commanders means increased diversity within the Major Commands and at senior medical leadership forums thereby enhancing problem solving and decision making.

I am pleased to report opportunities for command in the AFMS is on the rise for NC officers. Since 1987, all corps had the opportunity to compete for medical group commander positions however; these positions were physician dominated. The AFNC never had more than 2–3 nurses as commanders at any given time. After the centralized group commander selection process began in January 1996, the number of nurses selected for the opportunity to command medical groups significantly rose from 5 in 1996, to 11 in 1997, and to 18 in the most recent fiscal year 1998 board. As a result, the percentage of medical groups commanded by AFNC officers steadily progressed from 5 percent to 16 percent over the past three years. While the number of NC officers selected to command small and medium facilities has increased, the number of nurses to command large facilities and Major Commands has not. We anticipate continued progress in this area as more nurses are competitively selected and successfully command medical groups.

In order to evaluate progress in our goal achievement for the TNF, we also began tracking senior leadership positions for nurses in the Air Reserve Components (ARC). The percentages of medical units commanded by nurses in the Air Force Reserve Command (AFRC) is 36 percent, and in the Air National Guard (ANG) is 12 percent, averaging to 23 percent of the total Air Reserve Component (ARC).

I would like to briefly focus on one of the squadrons in the medical group. The Medical Operations Squadron (MDOS) is usually the largest of the squadrons in our medical groups and known for its clinically focused mission. Gaining squadron commander experience is crucial for future selection to medical group commander positions. The MDOS is ideal for nurse commanders to gain that experience. After the AFMS reorganized into squadrons, the MDOS commander positions filled by nurses dipped from 44 percent in 1994, to 34 percent in 1996. I am pleased to report the most current statistics on MDOS commander positions filled by NC officers has rebounded to 47 percent. Similarly, the overall number of squadron commander billets from all four squadrons filled by NC officers rose from 13 percent to 16 percent this past year.

Nurses In Senior/General Officer Billets

In September 1994, the 2-star general officer promotion board opened to all corps and in September 1995, the 1-star board became a corps neutral opportunity. Moreover, the Fiscal Year 1996 DOD Authorization Act expanded the 3-star Surgeon

General position beyond the Medical Corps (MC) to include all health care service corps. Finally in 1996, all services allowed all corps to compete for major command roles. These are important steps in assuring a level playing field for leadership opportunities for all corps throughout the AFMS.

Officers compete for 1-star flag officer promotion at 2 years time in grade of colonel and must assume 1-star rank before their mandatory retirement date (normally 30 years commissioned service). Officers competing for 1-star flag officer positions in the AFMS normally progress through a series of medical group commands and other senior leadership positions. Eligibility for Medical Group command begins after the officer has been selected for colonel and ends at 26 years of commissioned service.

The usual phase point for Medical Corps (MC) and Dental Corps (DC) officers to reach colonel is between 13 to 18 years of commissioned service. The MC/DC officers have up to 13 years as a colonel to progress through medical group commands, and a total of 17 years to reach other higher level career milestones in preparation for general officer promotion. In comparison, the normal phase point to colonel for the DOPMA constrained corps, the Nurse Corps, Biomedical Science Corps (BSC), and Medical Service Corps (MSC), is 21 to 22 years. These officers only have a 4 to 5 year window to progress through multiple medical group commands, and a total of 8 years to achieve higher positions that make them competitive for general officer promotion. This puts nurses, as well as other DOPMA constrained corps, at a distinct disadvantage for general officer promotion.

In order to be competitive with the non-DOPMA constrained corps (MC/DC) and have enough time to progress through a career track toward general officer promotion, DOPMA constrained candidates (NC, BSC, MSC) need at least one, if not more, below-the-primary-zone (BPZ) promotions. Currently, the BPZ opportunity for DOPMA constrained corps is significantly less than for Line of the Air Force (LAF) officers and non-DOPMA constrained corps (physicians/dentists). We are evaluating the viability of these BPZ promotion opportunity percentages for NC, BSC, and MSC officers.

Senior Leadership Development

In March 1997, we had our very first Total Nursing Force Executive Leadership Symposium for both enlisted and officers. For the first time we were able to bring together the vast majority of Active Duty, Guard, and Reserve Chief Nurses and senior enlisted Medical Service Managers. A survey conducted during the symposium overwhelmingly demonstrated a need to continue this Total Nursing Force senior leadership forum. Similarly, at the Association of Military Surgeons of the United States (AMSUS) meeting, we had our first Total Nursing Force day. The Guard, Reserve, and Active-Duty nursing leadership presented overviews of their respective programs, a progress report on the TNFSP, a panel discussion surrounding enlisted training issues. We also received presentations from guest speakers on utilization of forensic nurses and the challenges of forensic investigation of the airline crash in the Florida Everglades. The programs were top-notch with standing room only. The TNF is committed to exploiting these opportunities annually to help us achieve our vision of a seamless, integrated Total Nursing Force.

Another senior leadership strategy undertaken this year was the revision of the USAF Nurse Corps career path. We are in the process of distributing it and posting it on our Total Nursing Force Homepage. The career path expands guidance beyond the traditional clinical track to career paths in senior leadership and staff officer tracks such as medical readiness, health promotion, managed care, and education.

Goal No. 2: Spearhead Customer-Driven Nursing Practice:

Goal statement.—Champion competent, collaborative practice among healthcare professionals to deliver truly customer-centered, affordable and accessible healthcare.

Customer Satisfaction

The TNF is heavily invested in the AFMS Customer Satisfaction Task Force, chartered to develop an overall strategy for instilling a climate and culture of customer focus and service. Our Surgeon General has emphasized this focus must be a cultural change rather than a program.

The Task Force determined that the implementation of this culture change was dependent upon eight essential elements: Leadership; Performance Management; Education and Training; Communications; Measurement; Best Practices; Facility Implementation; and Products, Services, and Systems. The Task Force appointed champions for each element and then developed objectives to meet the overall strategies. Nurse Corps officers are champions for the Leadership, the Performance Evaluation, Recognition and Rewards, and the Education and Training elements.

The future endeavors of the Task Force will include planning for the roll-out of the AFMS Customer Service Culture Change Plan to all AF Medical Treatment Facility (MTF) next spring. The Task Force will provide support to five model sites, taking their "lessons learned" to refine the Customer Service tools and pushing for inclusion of customer service training in all AFMS formal courses.

A revolution in customer service culture in the AFMS is on the horizon. The TNF is committed to continually improving our skills in patient advocacy and supporting our personnel in their initiatives to ensure quality care to delighted customers.

Goal No. 3: Forge Ahead as a Full Partner in the AFMS Building Healthy Communities:

Goal statement.—Integrate nursing's unique healthcare expertise into building robust prevention-based health and wellness, which will make healthy communities cultural and societal realities.

Prevention-based Health and Wellness

Nurses and medical technicians have traditionally been the front-line champions of this goal through day-to-day health promotion and utilization management (UM) activities. Approximately 75 percent of the AFMS health promotion and UM officers are nursing personnel.

Disease management is a part of UM methodology, but it represents a change in paradigm. What can disease management do for the AFMS? A review of the literature has demonstrated that managed care organizations which have embraced disease management have documented improved quality of care and services, and cost efficiencies. An effective disease management strategy seeks to reduce the variability in treatment between providers and individuals. Each phase of the patients' care, from an ambulatory preventative visit, to illness, then recovery must coincide with the disease management strategy. Thus, a population health management approach requires specific techniques, skills, and strategies in addition to those needed in clinical practice. Nurses and medical technicians have the basic skills to fully contribute to these programs. We have targeted nurses to take on the role of the Health Care Integrator (HCI). We anticipate assignment of an HCI at every MTF to be the driving force in case management and in coordinating a continuum of care and services for the patients in the AFMS system.

With the patient's best interest in mind, nurses and medical technicians have stepped forward with vitality to take on this new role. In my previous testimony, I described the HCI role. The HCI's responsibilities range in depth and scope based on individual MTF needs, however the majority are extensively involved in disease and population health management. We believe the HCI's can make a tremendous impact at MTF's supporting large and diversified populations. We invested in our HCI's by sending them for training at the 1998 AF Worldwide Prevention Conference where they participated in presentations and panel discussions by the LoveLace Healthcare Innovations Corporation and other AF HCI's. The educational objectives focused on the application of disease management programs to day-to-day nursing practice and the successful implementation of the HCI role.

Since its introduction in 1997, 48 percent of the AFMS facilities have resourced an HCI, as compared to 11 percent a year earlier. Of the facilities that do not have HCI's assigned, 75 percent plan to do so in the next year. We anticipate the HCI will become the focal point for our enrolled population and the conduit between the Primary Care Manager (PCM), the patient, and the community at large. We believe the HCI will be the bridge to successful and sustained implementation of the DOD's Putting Prevention into Practice Program. I would like to highlight some of the successful disease and population health management initiatives implemented at our facilities.

Ambulatory clinics across the AFMS have consistently developed Nurse-Run clinics, primary care triage services, and Ambulatory Procedure Units (APU). Typically Nurse-Run clinics focus on managing asthma, hypertension, and diabetes with HCI's providing case management, patient education, follow-up, and coordination of care between the PCM's, referral services and patients. Some facilities have expanded management activities to routine women's health and obstetrical services. Nurses in primary care triage services use approved protocols to manage acute appointments, referrals, and provide home and self care advice.

The triage service was especially valuable at Offutt AFB in Nebraska during peak influenza season. The triage nurses responded to 266 patient calls per day with home care advice sufficient for 14 percent (37) of the callers. The 2nd Medical Group (MDG) at Barksdale AFB, Louisiana, the 60th MDG at Travis AFB, California, and the 354 MDG at Eielson AFB, Alaska, have reassigned consult management from administrative personnel to nurses or medical technicians, exploiting their clinical

expertise, rapport with PCM's, and problem solving skills. This move has changed a historically "bumpy" system into a smooth process with fewer delays in referral appointments, fewer missed appointments, and reliable provider follow up.

The 74th MDG at Wright-Patterson AFB, Ohio, instituted pediatric disease management strategies for special needs children. In the past, the parents of these children were on their own to identify and access all needed resources in the military and civilian medical communities. The HCI for this population enhanced the holistic multi-disciplinary team approach, coordinating services addressing the family's clinical, psychological, financial, and social needs. Similarly, the 45th MDG at Patrick AFB, Florida, and the 90th MDG at F.E. Warren AFB, Wyoming, instituted pediatric asthma clinics. Intensive patient education in these clinics improved home care treatment and decreased readmission rates.

Across the board, nurses and medical technicians played pivotal roles in converting inpatient medical units to 23-hour APU's. The APU's were designed to provide nursing care services to patients on an outpatient basis such as administering intravenous antibiotics and intravenous hydration, performing dressing changes, giving wound care, and offering extended post-procedure monitoring. This is a primary example of offering customer convenience and point of contact quality care. Wright-Patterson developed a Nurse-Run Ambulatory Infusion Service for oncology patients with chemotherapy regimes. Previously, these patients were admitted to inpatient units because of traditional practice, insufficient staffing in the clinic, and inadequate clinic hours. Since implementation, the outcomes are overwhelmingly positive. The service provides therapies at the appropriate level of care, patients are pleased with reduced time in treatment, and admission for that treatment have decreased from 117 to 19 per year.

In summary, I am proud to say the TNF has often provided the vision and tenacity to move these programs forward. These are just a few examples of nursing programs that directly support the AFMS strategic initiative of building healthy communities.

Goal No. 4: Champion an Integrated Ready Force:

Goal statement.—Maximize medical readiness capability with the right mix of multi-skilled personnel, incorporating joint training and interoperable equipment.

The AFMS continues to lean forward in the areas of medical force protection and has made great strides in the past year to improve AE operations, advanced trauma education, Biological Warfare/Chemical Warfare (BW/CW) protection, Self Aid and Buddy Care (SABC) training, health promotion and disease prevention programs. The TNF is an integral part in the development, implementation, and deployment of all these programs. The AFMS has not lost sight of the fact that our number one job is to ensure we have a "healthy and fit force." Through these programs, our Airmen will be ready to do their job, whenever and wherever that may be.

As our Surgeon General pointed out in his testimony, the operational tempo (Ops Temp) in the past year for the AFMS has again been extremely high. The deployment of medical forces in support of sustainment operations, humanitarian assistance, and disaster relief has continued to grow. The AFMS has directed many of its energies in the past years to operations identified as Operations Other than War (OOTW). Such involvement directly supports our goal to keep the skills of our nurses and medical technicians honed for rapid deployment while truly assisting those in need; a definite Win-Win situation for all involved. Now, I will highlight the OOTW's the TNF has supported.

Sustainment Operations

Operation Desert Focus.—The ongoing support to Southwest Asia (SWA) has been a Total Nursing Force commitment from all Active Duty, AFRC, and ANG medical specialties. A 25-bed Air Transportable Hospital (ATH) remains deployed to Prince Sultan Air Base (PSAB), Kingdom of Saudi Arabia. It is staffed with 65 medical personnel on a 120-day rotational deployment. Aeromedical evacuation assets are collocated serving as the hub for tactical and strategic patient movement. In addition, the ARC was tasked to provide complete coverage of the ATH. The ANG's rotation begins in April 1998.

Our enlisted Independent Duty Medical Technicians contribute to a theater medical surveillance team positioned at PSAB to monitor the health of personnel pre/post deployment and to conduct environmental surveillance of sites within the SWA. They also support an in-theater clinic at Eskan Village in Riyadh and numerous Squadron Medical Elements (SME) deployed with operational flying units.

Operation Joint Guard.—The TNF remains engaged in Bosnia and Croatia primarily in aeromedical evacuation missions and staffing a 5-bed Air Transportable Hospital and a Mobile Air Staging Facility (MASF) asset.

Operation Uphold Democracy.—The AFMS was tasked by the Joint Chief of Staff to deploy a 10-bed ATH to support deployed forces at Port Au Prince, Haiti. The TNF performed numerous humanitarian projects within the Haitian community during this operation.

Humanitarian Civic Actions (HCA)/Disaster Relief

The AFMS provides medical relief for natural and man-made disasters throughout the world. From contributing to flood relief efforts in Grand Forks, ND, to responding to military and civilian airline accidents, to providing health care to refugees, the TNF is a full participant. These programs enhance our National and Military Strategic Objectives, provide quality healthcare to a needy population, and imparts good healthcare practices to future generations.

Joint Training Through Mirror Force

A major objective of the TNFSP Goal No. 4 is to arrange (joint) training to meet contingency needs. As has been briefed in previous year testimonies, Mirror Force is an Air Force Leadership initiative by the Active, AFRC, and ANG to share similar training and missions, optimizing utilization efficiencies. Mirror Force is designed to bring the Active, Reserve, and Guard personnel together into a seamless, medically ready force. The TNFSP directly links to this strategy.

Recently the AFMS established active duty nurse positions at the AF Reserve Region Support Groups (RSG) at each of the three AF Reserve Numbered Air Forces (NAF). As Directors for Clinical Readiness Programs, Training, and Readiness missions, these nurses will be responsible to the RSG Surgeons General for all clinical professional matters and provide expert guidance and operational guidance to all subordinate medical and aeromedical units within the NAF's. This initiative will enhance readiness training for 2,500 medical officers and 5,000 enlisted technicians and offers a "Total Force" approach by developing a team composed of active duty, air reserve technician and reserve personnel.

To promote interoperability the DOD conducted one of the largest joint medical training exercises in history. In June 1997, more than 2,000 Active-Duty, Reserve and Army, and Air National Guard doctors, nurses, medical technicians from all services came together for Patriot Medstar 1997. The exercise helped military medical professionals assess, treat, stage and evacuate "wounded" soldiers from a fictional battleground. Initiatives are underway to make this a recurring Joint bi-annual DOD Patient Evacuation exercise.

The Nursing Department at the USAF School of Aerospace Medicine, Brooks AFB, Texas stood up a total force training endeavor in the past year. The Critical Care Air Transport Course was established and began accepting students this year. Flight nurse instructors put together this training program to meet the patient care skills needs in both peacetime and wartime environments. It trains Total Force physicians, nurses, and enlisted specialists who may be required to provide critical care support to AE patients.

A prime example of the partnership of the TNF in support of medical readiness is the training initiative called TopSTAR (Sustainment Training/Advanced Readiness). The TopSTAR initiative was identified in last year's testimony, as a total force program creating optimal and efficient medical training opportunities for all clinical specialties required to perform wartime tasks. The primary driver for the initiative is the reduction of Air Force inpatient MTF's as medical readiness training platforms. In 1988 the AFMS operated 82 hospitals with 5,053 operating beds. Currently we have 37 hospitals with 1,487 beds. It will be impossible to meet all training requirements in the remaining inpatient settings for our active duty medics, not to mention our reserve component medics.

TopSTAR was implemented in February 1998 at its first training platform at Wilford Hall USAF Medical Center in San Antonio, Texas. The training is conducted in a simulated environment, using state-of-the-art mannequins and computer-based instruction. The highly technical nature of medical skills training requires extensive practice in both actual and simulated patient care settings. Simulated wartime environments can be used in the lab to practice critical skills and procedures prior to actual patient care or deployment and improve access and training opportunities for medical personnel. After a 2-week rotation, the students complete 100 percent of their sustainment training requirements. Previously, this sustainment training was fragmented and spread out over the entire year. We hope to identify west and east coast sites to expand this valuable program in the years ahead.

Standardized Medical Readiness Training System

Another task under the TNFSP Goal No. 4 of the TNFSP is to deploy the Standardized Medical Readiness Training System (SMRTS) implementation guidelines for nursing to the field. SMRTS is an automated system to track standard medical

readiness training for all medical personnel. The original SMRTS database was quite comprehensive but was cumbersome and redundant. Nursing Services took the lead in reengineering the SMRTS. System changes have centered on restructuring the database to provide user requested features and system flexibility and compatibility with other data base management programs. The Air Force Inspection Agency (AFIA) is actively engaged in ensuring all training programs are in compliance with Air Force directives.

Goal No. 5: Effectively Use AF Nursing Resources

Goal statement.—Capitalize on Air Force nursing personnel to optimize support for the AFMS mission requirements. We want to ensure the TNF maintains the proper skill mix, grade structure, and experience balance necessary for mission accomplishment. We begin this sustainment process through accessions and recruiting efforts, accompanied by force sculpting of size, skill mix, and grade requirements.

Accessions

Since 1979, the entry-level educational requirement for commissioning as AFNC officers was a Bachelors of Science in Nursing (BSN) degree. In response to the nursing shortage in 1987, the AFMS altered the entry-level requirement to include registered nurses graduating from an Associate Degree in Nursing (AND) or Diploma programs. However, the candidates must also have completed a Baccalaureate degree in a health science field. In the past several years, the AFMS attained its nursing accession goals. We have an ample source of entry level, novice nurses with BSN degrees. In 1997, the Air Force senior nursing leadership carefully scrutinized our accession success rate and the AFNC manpower requirements. The AFMS changed the entry-level educational requirements for AFNC commissioning to a minimum of a BSN degree.

BSN nurses have the requisite knowledge base, flexibility, and experience to teach our medical technicians, and collaborate with interdisciplinary professionals and agencies. Our nurses plan and evaluate health care for individual patients and communities in a wide range of settings. Military nurse officers require the same enhanced leadership skills and professional expertise required by other medical service and line officers. In the rapidly changing U.S. health care environment, the military nurse must be educated to focus on patient education, health promotion and disease prevention. Air Force nurse officers must independently lead, manage, teach, and integrate health care across the spectrum of peacetime, war, and humanitarian operations.

Recruitment

In order to meet the AFMS strategic initiative and the more complex demands of our present and future health care environment, we want to enhance our force structure. We refocused the accession bonus policy to incentivize difficult recruitment categories, such as nurses with three or more years of nursing experience, and nurses with specific advanced academic degrees.

A recruitment initiative I described in last year's testimony was the Cadet to BSN/MSN program. As early as 1992, cadets at the United States Air Force Academy had voiced interest in entering the AF Nurse Corps. I am pleased to report that the Air Force Academy now has scholarships for cadets who want to attend nursing school. In the fall of 1997, two cadets entered Vanderbilt University. Starting with the Class of 1998, up to five cadets annually will have the opportunity to attend nursing school. To assist these cadets in validating that a health profession career is what they want, the U.S. Air Force Academy Hospital established a shadow for those who wish to enter the Health Profession.

Finally, an area of concern in previous testimony was the insufficient number of obstetrical (OB) nurses we have in our inventory. We addressed this issue by increasing the number of accelerated obstetrical training sites and establishing a rigorous on-the-job-training program. These two initiatives, coupled with the incremental closure of OB services across the AFMS, brought the OB nursing shortage under control.

Force Sculpting: Rightsizing

The AFMS Mission Support Plan (MSP), accomplished in late 1997, was a "bottom-up" review process in which each MTF identified their plans for health care delivery and resource requirements through the year 2003. The changes in facilities and reduction of inpatient beds significantly decreased nursing manpower requirements in these patient care areas. We support this downsizing of clinical nurses assigned to inpatient areas.

Conversely, the number of nurses in ambulatory care settings will need to increase, not in management roles, but in providing disease and population health

management, patient education, and coordination of care. The Community Health Clinic (CHC) model for primary care (whether hospital-based clinic or freestanding clinic) was developed by the AFMS. The staffing pattern for CHC's is population-based—the number of providers needed is based on enrollee population and case-mix. The nurse to provider ratio defined in the CHC model is one nurse for every two providers. The Surgeon General's office will be conducting an "enterprise" level multidisciplinary review to ensure the MSP manpower requirements support the AFMS strategic initiatives. From a nursing perspective, the review will focus on the ratios of nursing personnel to providers and the evaluation of the appropriate mix of physician and nurse providers in the CHC's, women's health, primary care, pediatric and mental health environments.

Even after robusting nursing requirements into the outpatient areas, we anticipate a reduction of nursing manpower requirements over the next five years. In reviewing potential rightsizing goals for the AF Nurse Corps, it appears all nurse specialties except flight nurses could be decreased by varying degrees. Planning at this point indicates that in order to meet the overall fiscal year 2003 end strength, we need to increase annual losses approximately 130 above and beyond normal attrition (separations/retirements). For fiscal year 1999 we anticipate that voluntary reduction options, such as Temporary Early Retirement Authority (TERA) and Limited Active Duty Service Commitment (LADSC) waivers should be available to NC officers. Reduction incentives would be limited to the specialties with rightsizing targets beyond normal attrition. For nurse-provider specialties, end-strength numbers can most likely be achieved through normal attrition and by decreasing the number of nurses selected for graduate education to enter the provider specialty, and/or by decreasing recruiting goals for those specialties.

Force Sculpting: Skill Mix

Graduate Education.—The professional practice model of nursing demands that all nurses practice in each of four domains: clinical, research, education and administration. Graduate education prepares the nurse for expanded roles in one or more of these domains.

We have been successful at validating the wartime requirement for increased numbers of Women's Health and Family Health Nurse Practitioners. As we deploy TRICARE for peacetime healthcare, there is an increasing need for a mixture of these nurse practitioners to provide cost effective quality care.

The Air Force Nurse Corps will continue to stress the importance of Master's and Doctoral prepared nurses as it is a hallmark of our profession and supports our changing mission. We analyzed our advanced academic requirements for each MTF and coded each authorization that required an advanced degree for the position. We used these codes to participate in the Inter-disciplinary Forecast Board (IFB), as described in General Roadman's testimony. The IFB process compares the current inventory of specialists with the number of coded authorizations for that specialty, and forecasts the training requirements. The IFB enhances our efficiency and accuracy in forecasting advanced academic education needs and non-clinical fellowships.

Uniformed Services University of the Health Sciences (USUHS).—The USUHS Graduate School of Nursing (GSN) was officially approved on February 26, 1996. The mission of the GSN is to prepare advanced practice nurses (APN's) at the graduate level to deliver primary and chronic care, including anesthesia services, to active duty members of the Uniformed Services, their families, and all other eligible beneficiaries. USUHS has a worldwide perspective for education, research, and consultation uniquely related military health care and military medical readiness. Three Air Force Nurse Corps officers are assigned to the GSN faculty, two to the Certified Registered Nurse Anesthetist (CRNA) program, and one to the Family Nurse Practitioner (FNP) program. By incorporating USAF faculty and training into the USUHS program, we saved the USAF approximately \$300,000 in civilian contract educational costs. With the addition of these officers, the faculty is now more Tri-service and more military oriented. Already I am hearing how these AF nurse instructors contribute significantly to curriculum development and student mentoring.

In April 1994, the CRNA Program was accredited, permitting admission of students. Recognizing the outstanding training and cost savings offered by the USUHS CRNA program, the Air Force has now assigned all CRNA students to the USUHS GSN. This program allows us to continue the tradition of military trained CRNA's at a lower cost than we have ever experienced before. Additionally, we have evaluated the program and believe it to be one of the strongest in the country. The USAF CRNA students graduating from the USUHS program have had a 100 percent success rate on their board certification exams.

Force Sculpting: Enlisted Specialists

A resounding success story is the increasing number of medical technicians utilized in non-traditional roles like managed care, readiness, and health promotion. Exploiting their professional talents acts as a force multiplier increasing efficiency without degrading effectiveness. Another success story is the commissioning of enlisted Airmen who have completed a Bachelor's of Science Degree in Nursing. The TNF is committed to retaining these stellar individuals as NC officers who have already demonstrated their leadership potential and investment in the AFMS. Therefore, the AFMS chartered an Inter-disciplinary Process Team to develop a marketable total force career track for enlisted medical personnel, providing them with opportunities to achieve appropriate academic credentials or commissioning. Initial focus will be on medical technician personnel with commissioning opportunities in the AFNC.

Goal No. 6: Employ and Integrate Technology and Research:

Goal statement.—Exploit cutting edge technology and research to manage information and advance nursing practice.

Modeling and Simulation Technology in Medical Readiness

NC officers have recognized the value of advanced technologies and have been the driving force in its development and use. Currently, Air Force medical readiness is using databases and simulation models to answer a variety of questions about our medical deployment packages in the areas of staffing, equipment, configuration and patient management. We call our simulation models Unit Type Code (UTC) Validation Models. The models simulate patient care within a given facility created by the user selecting a variety of packages. As the model runs, we analyze where patient bottlenecks occur. We evaluate the maximum number of major equipment items such as ventilators or cardiac monitors in use at one time, then recommend changes or an augmentation package for a particular casualty stream. The models allow us to test changes in aeromedical evacuation policies to see how it effects staff and bed utilization. Similarly, we can also analyze the difference in patient care outcomes between deploying a specialty surgeon versus a general surgeon.

Exploiting modeling and simulation technology provides many benefits in the areas of cost containment and increased efficiency. Organizing and conducting large readiness exercises consumes a great deal of resources and time. A smaller cadre of personnel can run models against many different scenarios in a very short period of time. The results can be more exact and provide valuable information for decision-making or planning real time exercises. Modeling is also a defensible, valid and auditable means to determine medical readiness manpower requirements.

Telemedicine Technology in the Aeromedical Evacuation (AE) Environment

Almost two years ago, the Air Force stood up the first DOD working group to establish an AE Strategic Plan for the insertion of telemedicine into the aeromedical environment. Their charter was to provide telemedicine capabilities throughout the AE continuum, from the point of entry into the system to the patient's final MTF.

Telemedicine, or telehealth, is integrated across the military and civilian health care continuum. It is a technological tool that provides quality consultation and assessment to patients separated from medical providers by time and space. The insertion of this capability into our aeromedical environment leverages our readiness capability by placing advanced medical technologies closer to the battlefield. It supports changing doctrine of a smaller forward footprint, earlier evacuation of injured soldiers and movement of stabilized versus stable patients. The Bottom-line: telemedicine provides communication and medical capabilities essential in our quest for quality care to battlefield soldiers anywhere, anytime.

As the champion for this effort, I brought 45 participants from all walks of the DOD telemedicine and user communities together in May of 1996. We developed the strategic plan for the insertion of Telemedicine into the AE environment. Of this group, one-third were TNF personnel. The intention of this strategic plan was to insert a system that makes a difference in how we provide care, not to insert state of the art technology that is not wanted or needed by AE system users.

Dedicated, reliable communication from the air to the ground, and back to the air was identified as the most desired attribute of telemedicine. Due to severe limitations in our present communication systems, changes in patient's conditions, the need for further clinical information, and updates prior to landing are almost impossible to relay in today's AE environment. This has always been a frustration for flight nurses and aeromedical evacuation technicians as they routinely provide care in the air without direct access to a physician.

A Breakthrough Area was initiated to architect and implement a proof of concept demonstration to document the need for telecommunication from ground to air to ground. With our current operations of transporting stabilized rather than stable patient loads during peacetime and contingency operation missions, this communications capability is vital to safe quality patient care. The operational demonstration was conducted September 22-27, 1997 and involved "live" channel AE missions using C-141, C-9, and C-130 airframes for a total of 70.6 flying hours. This demonstration used commercial off-the-shelf computer systems and applications in addition to existing airframe communication systems. We were able to validate the use of e-mail and "chat" to and from the aircraft to ground AE command and control elements. We are now working toward our Phase II proof of concept demonstration in the Pacific Air Forces Theater.

Information Technology

The TNF maintains a viable and dynamic homepage website offering access to real-time information to AF nursing personnel around the world. We reached a significant milestone this year through the use of this medium. Our constituents now have an INPUT FORM they can access from the Nursing Homepage, complete it and forward to Headquarters Air Force, Nursing Services. The senders receive an immediate return receipt. Nursing Services' then forwards the suggestion to the appropriate goal group for consideration. Through this form all nursing officers, enlisted and civil service personnel have the opportunity to actualize the Total Nursing Force vision.

Technology in Education

Contemporary training of the USUHS CRNA program requires innovative technologies while maintaining traditional, proven techniques. A diversified clinical and basic science cadre of instructors is teaching a unique program. The classrooms and library have several software packages "on line" and these are used during the Anatomy/Cell Biology Course. In addition, computer-aided instruction is routinely used to teach human anatomy, cell biology, and nervous system structure and function. These courses utilize the Visible Human Project, which is available through the National Library of Medicine. Anesthesia Simulators allow students to practice anesthetic procedures in a more controlled virtual environment before progressing to the clinical area. These programs are a high-tech link between didactic and clinical education.

Distance Learning Technology

The DOD Federal Nursing Chiefs requested that APN's in the TriServices complete a Master of Science Degree in their specialty. A distance learning CRNA advanced degree program is now offered by the USUHS GSN. It was established to afford military CRNA's the opportunity to complete an advanced academic degree even though they are geographically separated from USUHS. Students participate in discussion groups over website technology and use video teleconferencing for one-on-one interaction with their instructors. This distance learning program is able to reach out to military nurses around the world to provide them an opportunity for higher education. There are five students enrolled, one is stationed as far away at Turkey and one is assigned to shipboard duty. The program eliminates the need for expensive relocation assignment and the cost of tuition.

In November 1996, the TNF stepped out and established a working group to define available distance learning program options for nurses. Distance learning provides an economical, effective, and efficient method of achieving academic goals even though students may be geographically separated from colleges or universities. The working group developed a Distance Learning Guide and published it on the AF Nurse Corps website and in hard copy. The guide is a quick reference for distance learning websites, descriptions of degree-awarding programs, and listings of colleges and universities offering distance learning nursing courses. The guide focuses on programs that may be of interest to our enlisted and officer force in pursuing bachelor's, master's, and doctoral level courses or degrees.

Military Nursing Research

Thanks to Congressional financial backing for the Tri-service Nursing Research Program, Air Force nursing research continues forward again this year. Between 1992 and 1995, 13 of the 75 Tri-service nursing research studies came from the Air Force: 1 of 8 (13 percent) in 1992, 5 of 20 (25 percent) in 1993, 3 of 24 (13 percent) in 1994, 4 of 23 (17 percent) in 1995, 7 of 29 (24 percent) in 1996, and 4 of 30 (13 percent) in 1997. Proposals completed through Tri-service Nursing Research Program during those years included: Readjustment of Gulf War Veteran Women/A Follow Up, Healing Touch, Impact of Story Telling on Burnout/Nursing Expertise, the

Air Force Nurse Transition Program, and Leadership Development. Through the fiscal year 1998 Department of Defense (DOD) Appropriations Bill for military nursing research, 12 of the 63 proposals for Tri-service nursing research were forwarded by the AF Nurse Corps for consideration by the Tri-service Nursing Research Program oversight body. In line with legislative language in the appropriations bill, proposals submitted by Air Force nurses in the Active-Duty, Guard, and Reserve Command included: Prenatal Care for Women In and Out of the U.S., Preventive Services: Role of the Nurse Practitioner, Nurse Roles During Deployment to Croatia: A Grounded Theory, and Health of Persian Gulf War Veteran Women.

Our medical centers have spearheaded the TNF efforts to "change the culture" and infuse research into practice. Assignment of Clinical Nurse Researchers (CNR) to each of our clinical investigative sites has provided the integral and essential link for nursing staff to incorporate research into day-to-day activities. The CNR's are tasked with increasing the nursing staff's knowledge and participation in clinical research, increasing dissemination of research findings, and then utilize research findings.

Investigators at Wilford Hall Medical Center (WHMC) received four TriService Nursing Research grants over the past 18 months. The studies are ongoing, and although no results are available, we anticipate the findings will have direct applicability to the AFMS. Nursing research will study: Effects of Position on Chest Tube Drainage and Pressure, Efficacy of Three Fluids on Hydration During BW/CW training, Critical Care Experience and Training During Aeromedical Transport, and Experience of Chief Nurses in Military OOTW's. In addition, the number of nursing research studies at WHMC has increased 900 percent since assignment of the CNR. In the previous 18-month period there were two nursing research protocols, currently there are 18. A study in the prevention of blister formation changed the management Basic Military Trainees preventing unnecessary outpatient visits and lost training time. Investigation of the safe time frame for use of disposable oxygen humidification bottles for each patient led to a decreased consumption rate, saving \$6,000 annually in resupply.

Since assignment of a CNR to Keesler Medical Center in Mississippi, nursing staff conducted and collaborated on eleven research studies and clinical trials as compared previously to two studies. Research topics range from health outcomes in diabetic management, effectiveness of smoking cessation programs, music therapy, and clinical trials testing alternative antibiotic treatment of penicillin-resistant pneumonia and use of Interferon as a treatment for interstitial fibrosis. For the first time, three research proposals were submitted to the Tri-Service Nursing Research Program for extramural funding. The proposals will study self-help for women with breast cancer, management of hypertensive patients through clinical nurse specialist interventions, and improvement of mother/infant outcomes by a locally designed and implemented prenatal program.

David Grant Medical Center (DGMCC) in California conducted three different types of research classes per quarter for nursing personnel. Subsequently, nursing personnel received over 254 continuing education units at no external cost to the Air Force. Six nursing studies were completed in clinically diverse areas such as prenatal fatigue for active duty mothers, birth control, visual changes with hyperbaric treatment, assessment of pitting edema, critical care nursing experience, and value perspectives of military officers. Four more clinical studies are ongoing, with three more studies in the planning process.

A recent Air Force graduate of the USUHS Nurse Anesthesia program won the American Association of Nurse Anesthetists' 1996 Student Writing Contest for the study she prepared on the "Incidence of Visible and Occult Blood on Laryngoscope Blades and Handles," published in the Association's June 1997 journal. This paper discussed the extent of contamination on anesthesia equipment that was identified as being ready for patient use. The study confirmed that more rigorous decontamination protocols must be instituted to ensure complete removal of blood prior to sterilization.

An Air Force Associate Professor at the USUHS is in the third phase of a large international project to study the education and utilization of Nurse Anesthetists in 177 World Health Organization (WHO) member countries. The WHO collaborated in this international study to provide information with respect to the quantity and quality of anesthesia care delivered by nurses in all countries. This study is providing information that can serve as a basis for the future planning of anesthesia manpower resources and education. The results will be of use to the MHS as health care providers and executives search for cost-effective approaches for the provision of care and the management of services for their beneficiaries.

Mr. Chairman and distinguished committee members, I believe you can see that Air Force nursing is generating lines of research aimed at issues critical to healthcare delivery, whether in the military or civilian sector.

CONCLUSION

In closing, I feel a great sense of pride and accomplishment as the Corps Chief of such an extraordinary group of officer and enlisted nursing professionals. The Total Nursing Force is eager to work tough systemic issues impacting our people, health care, and outcomes. Our Total Nursing Force Strategic Plan scripts the foundation of an evolving, living document addressing the challenges and opportunities facing Nursing Services and the Air Force Medical Service today and into the 21st century. As I address you today, I can say unequivocally that Air Force Nursing personnel are ready, willing, and able to protect our forces, protect our national interests, and advance democracy and freedom anytime, anywhere. Mr. Chairman and committee members, thank you for recognizing the invaluable contributions of military nursing. We appreciate your support in behalf of the Department of Defense, the Air Force Medical Service and the patients we serve.

**STATEMENT OF CAPT. MARY ANNE GARDNER, DEPUTY DIRECTOR,
NAVY NURSE CORPS**

Senator STEVENS. Now we turn to you, Captain Gardner.

Captain GARDNER. Mr. Chairman, Senator, on behalf of Admiral Engel who unfortunately could not be here today, I am honored to attend and wish to thank you for this opportunity.

As Admiral Engel prepares to relinquish her position as Director, I would like to take the opportunity to highlight a few of Navy Nurse Corps' accomplishments and relay some concerns.

NURSE'S ROLE

In the changing U.S. health care environment, the military nurse's role remains unique. As we shift our practice focus to health promotion and illness prevention, we must continue to care for patients who are critically ill due to disease or trauma. At the same time, we must remain prepared to go into harm's way to care for casualties in our operational missions. I am proud to relate some of the work that Navy nurses of all grades, assignments, and practice settings are doing to implement and support the seven goals of the Nurse Corps' strategic plan: operational readiness, nursing practice, quality of life, leadership, participation in political processes, education, and resources.

OPERATIONAL READINESS

Our fundamental goal and reason for existence is operational readiness. Over 5,300 active and Reserve nurses constantly prepare and are ready at a moment's notice when the call comes to deploy. Navy nurses excel in their abilities to practice diverse clinical nursing skills in varied locations such as aircraft carriers, hospital ships, fleet surgical teams, and with the Fleet Marine Force.

Operational readiness also means being instantly prepared for any event. A few examples include the recovery and treatment of survivors after the tragic crash of Korean Air flight 801 in Guam, deployment to Laos to aid in the humanitarian assistance program educating the local hospital staff on the setup and use of donated hospital equipment, and the upcoming exercise which will deploy the U.S.N.S. *Comfort* that Admiral Koenig spoke of.

UTILIZATION OF RESERVE FORCES

Crucial to our ability to continue the daily peacetime mission, while maintaining a readiness posture, is the successful utilization of our Reserve forces. Providing total force integration, Reserve nurses superbly replace deployed active duty staff, thereby allowing continuation of our peacetime mission without interruption of care. They have done this at Naval Hospital Bremerton during the deployment of Fleet Hospital Five to Haiti, during operation Kernel Blitz, and we drill at regular mobilization sites.

Contributory support at stateside, overseas, and other service military treatment facilities is another example. The reserves same-day surgery program, staffed by Navy, Army, and Air Force Reserves, moved to David Grant Medical Center at Travis Air Force Base, when Naval Hospital Oakland closed.

EXECUTING HEALTH CARE

But operational readiness also means keeping our service members fit, healthy, and at work. Navy nurses excel in planning and executing health care delivery wherever needed. This could be pierside, underway in local or extended ship operations, during plebe summer at the Naval Academy, or during various recruit training exercises such as the 54-hour Crucible Exercise at the end of Marine Corps recruit training.

In more conventional settings, Navy nurses independently manage various patient populations in nurse-run clinics or they may be at headquarters staff, working on the strategic plan that Admiral Koenig also spoke of for women's health.

In concert with the Surgeon General's goal of making TRICARE work, Navy nurses play pivotal roles at all levels, ranging from one-on-one beneficiary education at the facility level, to shaping and implementing policy at the lead agent and headquarters level, all in a tri-service environment.

Recognizing health care delivery requires knowledge and proficiency related to information management and technology, Navy nurses informatics expertise is steadily rising as more and more nurses gain increasing education and even master's degrees in this exploding field. Nurses at all levels are closely involved with the development and deployment of current clinical information systems which assist providers in making decisions about diagnoses and treatments and also tracks readiness status for deployment.

As telehealth awareness increases, there are endless possibilities for increasingly independent applications of telehealth by nurses, by corpsmen, and by other health care personnel. A few of the nursing applications include education conferences and the clinical applications might include wound care clinics or patient education efforts.

In another new initiative, we have focused efforts on acknowledging and respecting cultural diversity among our customers and among our corps. Our recently formed cultural diversity working group is defining culturally competent care and identifying ways to ensure its delivery, with the understanding that culturally competent care is a major issue for Navy medicine and not just the Nurse Corps. On the local level, various commands have estab-

lished diversity councils and nurses reach out into communities assisting groups in melding cultural practices with healthy lifestyles.

As the complexity of our professional practice increases, it is absolutely essential to maintain a strong research foundation. Thanks to the support of this committee, nursing research in the Navy has made huge strides. Our doctorally prepared nurses at larger stateside and overseas facilities actively mentor the junior nurses in basic clinical studies, in grant writing, and practice-based research utilization. Study topics may range from military managed care in the tri-service nursing environment and clinical studies on the effect of pain and patient positioning on patient recovery. These research results will help focus our efforts and limited resources in areas that will positively impact our customers and provide potential cost avoidance.

FUNDING AND LEADERSHIP

Continued funding availability is essential to our maintaining a solid base of nurse researchers. We continue to disseminate new findings to the caregivers in the field, yielding new scientifically validated information as the basis for our nursing practice.

Leadership is one of the strongest attributes of the nurses in our corps. Admiral Engel, as you mentioned, exemplifies the changes allowing Nurse Corps officers to compete for promotion to O-8, or for a second star. Legislative initiatives that allow all Medical Department Corps to be eligible for selection as Surgeon General are certainly welcome. The recent revision of the DOPMA grade tables which allows more equitable promotion for Nurse Corps officers is having positive effects.

By mid-1998, there will be 9 nurses in command and 15 executive officers or chiefs of staff at military medical treatment facilities, lead agent staffs, and education commands. Reserve Nurse Corps officers currently command two of the four reserve fleet hospitals in the Navy and three of the nine stateside hospitals that will be receiving casualties after combat.

The numerous accomplishments noted here would not be possible without the dedicated, educated, and motivated nurses who demonstrate nursing excellence on a daily basis. Essential foundations for this level of success have included a diversified accession plan, an all baccalaureate basic preparation sufficient numbers of master's prepared and board-certified members, and increasing doctoral education for research and practice development.

Legislative initiatives have both encouraged and rewarded these efforts. Accession bonuses for registered nurses, the nurse officer candidate program, special pay for nonphysician providers with board certification, incentive special pay for certified registered nurse anesthetists, and continuing funding for nursing research are welcome evidence of this committee's support for nursing.

With an increased demand for baccalaureate prepared nurses by the civilian sector, coupled with early indications of decreased numbers of eligible nurse graduates in the 21st century, we depend on the continuation of these diversified programs to meet our requirements. Navy ROTC, the nurse officer candidate, and enlisted commissioning programs, combined with the direct recruiting accession bonus, in total form a robust source for the best qualified nurses.

As Admiral Engel's tenure as the Director of the Nurse Corps comes to a close, we feel great pride in the accomplishments resulting from the hard work of so many people throughout Navy medicine. However, much work remains. Increasing demands despite limited resources require that our efforts be focused on maximizing and integrating our personnel and training assets. Rapidly changing technologies and health care environments, coupled with expanding joint humanitarian missions, chemical, biological, and radiological threats, increased operating tempos, and the implementation of TRICARE will continue to challenge our readiness.

Mr. Chairman, thank you for the opportunity to share the successes of the Navy Nurse Corps with you. These achievements would not be possible without the continuing support of this committee. The Nurse Corps will always treasure that support because it has been instrumental in allowing Navy nurses to demonstrate that Navy nursing is nursing excellence.

PREPARED STATEMENT

Admiral Engel looks forward to serving this great Nation of ours in a new capacity and providing the necessary leadership to develop tomorrow's leaders today as we move into the 21st century.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF REAR ADM. JOAN M. ENGEL

Mr. Chairman and distinguished members of the Committee, thank you for inviting me to represent the Navy Nurse Corps. This is my last appearance before you as Director of the Navy Nurse Corps. Before I relinquish my tenure, I would like to highlight a few of our many accomplishments and to relay my concerns.

The Compass that will continue to direct the Nurse Corps into the next century is our Strategic Plan—"Charting New Horizons." Fittingly named at its origin, our plan is a living document, which guides all aspects of our practice. Our plan is in concert with the goals of the Navy Medical Department's plan, "Journey to Excellence—Meeting the Challenges of the Future," as well as the Military Health System (MHS) plan. In the changing U.S. health care environment, the military nurse's role is unique. As we shift our practice focus to health promotion and illness prevention, we must continue to care for patients who are critically ill due to disease or trauma. At the same time, we must remain prepared to go into harm's way to care for casualties of our operational missions. I am proud to relate some of the work that Navy Nurses across the spectrum of grades, assignments, and practice settings are doing to implement and support the seven goals of our Strategic Plan: Operational Readiness, Nursing Practice, Quality of Life, Leadership, Participation in Political Processes, Education, and Resources.

Our fundamental goal and reason for Navy Nurse Corps' existence is operational readiness. Over 3,200 active and 2,100 reserve nurses constantly prepare to be ready at a moment's notice when the call comes to deploy. On a daily basis, this means keeping diverse clinical skills honed for patient care, whether in a stateside military facility or assigned to one of many operational platforms worldwide. Nurse Corps officers' broad range of expertise and the comprehensive view they bring to any assignment are well utilized in multiple operational settings. They excel in their abilities to practice nursing in such diverse locations as aircraft carriers, hospital ships, Fleet Surgical Teams, and with the Fleet Marine Force. Additional assignments include the Chemical/Biological Incident Response Force, Flight Nursing at Scott Air Force Base, and as part of the Hyperbaric Medicine Team at the Naval Operational Medicine Institute in Pensacola. Nurses also play a significant role as medical planners at the Naval Doctrine Center and the Marine Corps Combat Development Center.

Operational readiness also means being instantly prepared in response to sudden tragedy. Navy nurses from Naval Hospital Guam participated in the recovery and treatment of survivors after the tragic crash of Korean Air flight 801 with 254 passengers and crew onboard. Nurses from other military medical treatment facilities

also played a key role in saving lives. Of the 32 survivors of this tragedy, 19 received treatment in the Naval Hospital, many requiring intensive nursing care. Navy nurses provided significant psychological and debriefing support to the caregivers as members of our Special Psychiatric Rapid Intervention Team (SPRINT) deployed to this area.

Navy Nurses routinely support numerous operational exercises including all annual Marine Corps Medical Battalion exercises. Exercises involving our hospital ships U.S.N.S. *Mercy* and U.S.N.S. *Comfort* are critical to giving Navy Nurses experience in an operational setting as well as supporting the exercise itself. In the upcoming "Baltic Challenge" exercise, the U.S.N.S. *Comfort* will deploy significant numbers of Nurse Corps officers for an extended period. It will also test the lessons learned from Desert Shield/Desert Storm in meeting our day to day missions of peacetime health care in facilities supporting the deployment. In an unprecedented assignment, last fall, an operating room nurse was sent to Sepon Hospital, Laos, to support a Humanitarian Assistance Program—Excess Property program. The purpose of the mission was to educate the local hospital staff on the set up and use of donated medical equipment.

Integral to our ability to continue our day to day peacetime mission while maintaining a readiness posture is the successful utilization and integration of our Reserve personnel. Reserve nurses contribute to the "total force integration", providing superbly skilled replacements for deployed active duty staff, thereby allowing continuation of our peacetime mission without decrement in care. Prior to Fleet Hospital Five's deployment to Haiti, staffed by Naval Hospital Bremerton, Naval Reserve medical department nurses and other health care personnel substituted for hospital staff members sent to Fleet Hospital training. During the active duty training phase alone, inpatient care was largely uninterrupted and over 1,000 patient visits with ancillary tests were accomplished in 9,600 hours of Reserve duty (all corps and specialties).

Several other treatment facilities implemented the Integrated Medical Support Plan (IMSP). This plan emphasizes consistent Reserve drills at mobilization sites, enhancing both the Reservists' skills and the facility's ability to meet its peacetime and operational missions. A facility can gain six full weeks a year of a Reservist's time, instead of two weeks of annual training and disjointed portions of weekend drills. For example, with the IMSP implementation, National Naval Medical Center, Bethesda will become the primary drill site for approximately 450 officer and enlisted personnel. The positive effects of contributory support also extend to our overseas facilities. Twenty-nine Nurse Corps officers are providing support at such diverse sites in Okinawa, Guam, Spain, Italy and Africa. Reserve nurses' contributory support also extends to the other Services. Specifically, the Naval Reserve Same Day Surgery program, which moved to David Grant Medical Center at Travis Air Force Base, California when Naval Hospital Oakland closed, is being staffed by Navy, Army, and Air Force Reserves.

Operational readiness also means keeping the Sailors, Soldiers, Airmen and Marines fit, healthy and at work. Numerous efforts are underway to bring medical care to the deckplates, instead of the patient going to traditional clinic sites or medical treatment facilities. Navy nurses were integral in this planning and remain essential to the daily operations of pierside clinics in Norfolk and Okinawa. In addition to providing care in the clinic, the medical staff has expanded its services to include a broader spectrum of health care onboard several of our ships. For example, a nurse goes aboard these ships while in port or on local operations, supporting a weekly women's clinic, conducting regular health promotion classes and assisting the staff in routine care. Nurses independently manage various patient populations in wellness centers, cardiac rehabilitation programs and diabetes clinics, utilizing established protocols, focusing on improving patient outcomes.

Navy Nurses practice at a broad scope of sites ranging from recruit training to the headquarters level. Joining other Navy medical personnel, they support Marine recruits as they complete their final boot camp exercise—"The Crucible." They are there throughout the 54-hour exercise, assessing the potential risks, administering treatment for blisters and dehydration, and providing lessons learned to better prepare for the rigors of the next exercise. Traditionally responsible for the education and preparation of hospital corpsmen for independent roles, nurses are carrying out this important task in a variety of settings. They are assigned to Field Service Support Groups, Field Medical Service Schools, to Marine Forces Pacific, and they deploy with Amphibious Readiness Groups on Fleet Surgical Teams. The nurse-run Wellness Clinic at Quantico implements the Marines' "Semper Fit" program objectives during the annual summer "Operation Bulldog" exercise, and nurses are part of an augmented medical staff supporting Midshipmen at Annapolis during their plebe summer. At the headquarters level, Navy nurses are integral members of the

Women's Health Strategic Planning Group (WHSPG), which coordinates, guides, and monitors women's health issues throughout the Navy Medical Department.

In concert with the Surgeon General's goal of "making TRICARE work," Navy nurses play pivotal roles in the TRICARE arena. Interfacing with all levels of customers, these nurses provide consumers and staff members comprehensive education regarding key TRICARE concepts. Their assignment to Lead Agents staffs ensures valuable insights into staffing, contracting, performance improvement, and standards of care, critical to shaping and implementing policy within the Military Health System (MHS). With the advent of managed care, the three uniformed Services have integrated Mental Health and Maternal Child services in the National Capitol Region. Uniformed and civilian nursing staff are shared between National Naval Medical Center, Walter Reed Army Medical Center and Malcolm Grow Air Force Hospital. Issues related to consolidation are actively addressed and resolved by multidisciplinary, TriService groups intent on keeping the patient as the focus and center of care-giving.

As the complexity of our professional practice increases, it is absolutely essential to maintain a strong research foundation. Thanks to the support of this committee, nursing research in the Navy has made tremendous strides since its inception. There are doctorally prepared nurses at our larger stateside and overseas facilities who are actively mentoring junior nurses in basic clinical studies, in submission of grant proposals and in utilizing research results in practice. A few of the newly funded Navy studies for this fiscal year include: "Barriers to Subspecialty Care in Military Managed Care;" "Effects of Pain on Postoperative Pulmonary Complications;" "Effects of Patients Positioning on Post-Surgical Recovery;" "Infant Birth Weights and Psychosocial Profiles of Mothers;" and, "Nursing in a TriService Environment." Results of these studies will help focus our efforts and limited resources in areas that will positively impact our customers and provide potential savings to the Navy. Funding availability for novice as well as experienced investigators is essential to ensuring we maintain a solid base of nurse researchers. Research Dissemination conferences help to get the new findings out to the caregivers in the field, yielding new, scientifically validated information as an underpinning for nursing practice.

Recognizing that health care delivery requires knowledge and proficiency related to information management and technology, Navy nurses at the local and enterprise level are closely involved with the development, deployment and maintenance of current Department of Defense (DOD) clinical information systems and the development of the Computer-based Patient Record (CPR). These systems are much more sophisticated than bedside computers used to create a patient record. They will accept data from monitoring devices, feed data to personal information carriers, incorporate health risk assessment surveys, and accept and deliver information from multiple providers involved in the beneficiary's care. These information systems and their data assist providers and clinicians in making decisions about diagnoses and treatments, and also ascertain readiness status for deployment. The Computer-based Patient Record will ensure that data are accessible to authorized users at military health facilities worldwide; from medical centers to ships, field medical units; and, TRICARE network sites. In addition, automated information systems will aggregate data, without patient identifiers, to support research, utilization management and improvements in patient care. Expertise in information management as well as computer and database technologies applied to nursing is being operationalized as more nurses are gaining masters' degrees in nursing informatics and becoming certified each year. This knowledge is being utilized in our military medical treatment facilities, at information management commands, and by health care policy staffs. There is also growing Nurse Corps participation in the rapidly expanding field of telemedicine. While the primary users are currently physician-focused, as exemplified by radiology, pathology and medical education applications, nurses are increasingly involved as more clinics, hospitals and ships utilize telemedicine as an adjunct in the delivery of health care. As telehealth awareness increases, there are endless possibilities for increasingly independent applications of telehealth by nurses, corpsmen and other professionals. A few of the nursing applications include wound care clinics and the extensive array of patient education opportunities.

Leadership is one of the strongest attributes of the nurses in our corps. Changes allowing Nurse Corps officers to compete for promotion to O-8, and for all Medical Department Corps to be eligible for selection as Surgeon General are welcome. The recent revision of DOPMA grade tables, to allow more equitable promotion, is having positive effects on the Nurse Corps, and on Navy Medicine. By mid-1998, there will be 9 nurses in command and 15 executive officers or chiefs of staff at military medical treatment facilities, lead agent staffs, and education commands. Reserve

Nurse Corps officers currently command two of the four Reserve Fleet Hospitals. Three of the nine Integrated CONUS Medical Operations Plan (ICMOP) facilities (San Diego, Bremerton and Bethesda) are commanded by Reserve Nurse Corps officers. In the past two years we doubled the presence of Nurse Corps officers assigned to Health Affairs and the TRICARE Management Activity (TMA). They hold such pivotal positions as Director, Health Services Financing Policy, acting TMA Chief of Staff and another as the Clinical Business Area Functional Manager. These assignments provide much-needed clinical background and expertise during planning and decision-making in health care delivery. Additional experience is provided to our Nurse Corps leaders of the future, who will continue to break new ground in health care delivery and contribute to a strong Navy presence in the Military Health System.

The many, many accomplishments mentioned here would not be possible without the dedicated, educated, and motivated nurses who demonstrate nursing excellence on a daily basis. The essential foundations for this level of success include an all baccalaureate basic preparation, a sufficient number of master's degreed and board-certified members, and increasing doctoral education for research and practice advancement. Again, legislative initiatives have both encouraged and rewarded these efforts. Accession Bonuses for Registered Nurses, Nurse Candidate Program, Special Pay for Nonphysician providers with board certification, Incentive Special Pay for certified registered nurse anesthetists, and continuing funding of nursing research are welcome evidence of this committee's support for nursing.

These external quality of life initiatives complement the internal efforts focused on acknowledging, respecting, and valuing cultural diversity among our customers and our Corps. Our newly formed Cultural Diversity Working Group is defining Cultural Competence and identifying ways to ensure its delivery, with the understanding that Culturally Competent Care is a Navy Medicine issue. Valuing the necessity for culturally competent care, this group's goal is to conduct and disseminate research findings that will familiarize and educate our staff members in our military medical treatment facilities worldwide to practices and customs unique to our diverse patient populations. To date, emphasis has been placed on identifying educational resources, literature review, and exploring community resources to develop a cultural competency model. More local efforts are visible as various commands establish diversity councils and as nurses go out into communities to assist groups in melding cultural practices with healthy lifestyles.

As I review events over my tenure as the Director of the Nurse Corps, it gives me great pride to reflect on the accomplishments that resulted from the hard work of so many people throughout Navy Medicine. However, our work is not finished. Increasing demands despite limited resources require that our efforts be focused on maximizing and integrating our personnel and training assets. Our rapidly changing technologies and health care environments coupled with expanding joint humanitarian missions, chemical, biological and radiological threats, increased operating tempos and the implementation of TRICARE will continue to challenge our readiness.

The Nurse Corps will continue to reap the benefits of and rely on the various diversified Nurse Corps initiatives that target recruitment and retention of generalist and advanced practice nurses. With an increased demand for baccalaureate prepared nurses by the civilian sector, coupled with early indications of a reduced pool of eligible nurse graduates in the 21st century, we depend on the continuation of these programs to meet strength requirements. The Naval Reserve Officers Training Corps (NROTC), Nurse Candidate Program (NCP), Medical Enlisted Commissioning Program (MECP), in addition to the direct recruiting accession bonus, in total combine to form a robust source for the best qualified nurses. The NROTC Nurse Option program has finally matured. This program is the linchpin of Nurse Corps accessions, with 287 midshipmen currently enrolled in 52 colleges and universities. Every NROTC unit with Nurse Option midshipmen has been "adopted" by one of our Navy Military Medical Treatment Facilities' Nurse Corps officer staff. As a result, the transition is eased from academia to the first practice assignment for these new nurses and naval officers.

After several years of annual loss rates between 10 percent and 11 percent (or higher), the Nurse Corps recorded an annual loss rate for fiscal year 1997 of 8.75 percent. While too early for conclusive analysis, these indicators point to the payoff of these diversified accession sources and special pays (increased incentive special pay for nurse anesthetists and board certified pay for non-physician providers) so important for retention. As in the other Corps, the Nurse Corps relies on training-to-skills required for specialties within the community, as recruiting has been historically unsuccessful. I ask that my relief continue to benefit from these various initiatives that target the recruitment and retention of generalist and advanced

practice nurses. These accession and retention initiatives, in conjunction with strong leadership and congressional support are critical components to turning the challenges ahead into readiness successes.

Mr. Chairman, thank you for the opportunity to share the successes of the Navy Nurse Corps with you. These achievements would not be possible without the continuing support of this committee. I will always treasure that support because it has been instrumental in allowing Navy Nurses to demonstrate that "Navy Nursing IS Nursing Excellence". I look forward to serving this great nation of ours in a new capacity providing the leadership necessary to move us into the future as we develop tomorrow's leaders today.

Senator STEVENS. Thank you very much. We appreciate that. Give the Admiral our best.

General Simmons.

STATEMENT OF BRIG. GEN. BETTYE SIMMONS, CHIEF, ARMY NURSE CORPS

General SIMMONS. Mr. Chairman, distinguished members, thank you for this opportunity to provide brief remarks on the Army Nurse Corps which today is 34 percent men. We are very, very proud that we have such a high percentage of men in our Army Nurse Corps. Senator, you will be glad to know that.

Army nurses continue to set the pace for innovations with a focus on improving the timeliness, appropriateness, and quality of health care. I will share some brief comments within the context of the three core functions of the Army Medical Department: projecting a healthy force, deploying the medical force, and managing the care of our beneficiaries.

One initiative Army nurses are engaged in is a project to project a healthy force through the Put Prevention Into Practice Program. This program, part of a national campaign, focuses on the community and soldier work site prevention of disease rather than urgent intervention. Through this initiative we formed partnerships with commanders to promote healthy family lifestyles and prevent injuries. This unit-based program improves overall line unit readiness by decreasing the amount of time soldiers are away from their unit because of injuries and promotes healthy soldier lifestyles and personal responsibility for health.

TRI-SERVICE NURSING PROGRAM

Senator Inouye, your vision and support of tri-service nursing research serves to enhance the proliferation of relevant military nursing research. For example, one study funded through tri-service nursing research dollars examined the benefits of physical training for pregnant soldiers. The study analyzed the effects of a pregnant soldier wellness program, including exercise and health education in regard to birth outcomes, health care costs, and soldier postpartum physical fitness. Findings indicated that soldiers participating in this program were more likely to carry their babies to term and that they had fewer birth complications. Hospital costs for soldiers in this program were significantly less than for soldiers who did not participate. We thank you, sir.

We support the second core function of deploying the medical force by ensuring individual medical readiness and the deployment of Army nurses who are specialty trained to provide care in any contingency. Again, a study funded by the tri-service nursing re-

search program lays the foundation for clarifying the concept of individual readiness. We have used this information to develop training programs aimed at keeping ourselves ready and ensuring that we are personally and mentally prepared and physically qualified for the challenge.

We are training and graduating flexible advanced practice nurses, specifically family nurse practitioners, who play a pivotal role in TRICARE. Based on the tri-service nursing need to graduate the most flexible nurse practitioners, the Uniformed Services University of Health Sciences instituted a 1-year program to transition adult and pediatric nurse practitioners to become family nurse practitioners. The role of the family nurse practitioner in providing quality, affordable, accessible health care is gaining acceptance in the service as well as in the civilian sector.

Army nursing continues to use research as the mortar and bond for clinical practice. The tri-service nursing research program is the foundation on which we build this initiative. The tri-service nursing research program has enabled the creation of a partnership with the National Institute of Nursing Research. This initiative fosters the rapid translation of fundamental research findings into clinical applications and directs a portion of this investment toward military and peacetime operations and the urgent problems stemming from preventable disease, violence, and substance abuse.

Nursing continues as a linchpin in the health care delivery system by spearheading initiatives to increase individual responsibility and accountability for wellness.

PREPARED STATEMENT

Mr. Chairman, I thank you and members of this committee for your ongoing support of initiatives to improve the delivery of health care to our beneficiaries. As military nursing practice continues to evolve, we remain a recognized leader in our profession because of the unswerving commitment to recruit and retain the very best nurses to care for America's sons and daughters.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF BRIG. GEN. BETTYE SIMMONS

Mr. Chairman and distinguished members of the committee, I am Brigadier General Bettye Simmons, Chief, Army Nurse Corps. Thank you for this opportunity to provide a brief report on the status of the Army Nurse Corps. Army nursing continues to set the pace for innovations with a focus of improving the timeliness, appropriateness and quality of healthcare. Today I will share some of these initiatives within the context of the three core functions of the Army Medical Department. These functions are: Project a healthy and protected force, Deploy the medical force, and Manage the care of all beneficiaries as accountable advocates.

Army nurses are active participants in deploying a healthy force through initiatives aimed at protecting the health of soldiers. These initiatives include improving soldier access to care, preventing disease and injury and promoting soldier awareness of healthy lifestyles. We are improving access and efficiency by providing care where soldiers live. At Fort Hood, soldier sick call and family care services are provided in a facility that is co-located with troop billets and family housing areas. Here, the health care team collaborates to not only provide acute care management but teach family strategies designed to promote family health. Readiness is enhanced with a nurse managed OB-GYN clinic at Fort Campbell staffed with nurse practitioners and nurse midwives that provides easy, in and out nursing care conducive to female soldier's around-the-clock schedules.

We continue to make tremendous strides in health promotion. Army community health nurses are busy putting the punch into the Army's "Put Prevention into Practice" program. This program, part of a national campaign, focuses on community and soldier worksite prevention of disease rather than urgent intervention. Today, at Fort Bliss, Texas, we are collaboratively implementing one of the first service model sites for this program. By figuratively pushing the walls of the medical facility out to soldier worksites, we can form partnerships with line commanders to promote healthy soldier lifestyles and prevent injuries. This concept of worksite wellness includes wellness lecture and self-care portable take-home packages. The program will improve overall line unit operability by decreasing the amount of time soldiers are away from their unit due to disease or injuries and will promote healthy soldier lifestyles to further reduce sick days. Commanders will have optimally fit and healthy soldiers with which to perform their missions.

Military nursing research supports our initiatives to deploy a healthy force. One Army nursing study examined whether physical training is safe for pregnant soldiers and their unborn children. Physical training is a routine part of normal military duty because of its role in maintaining combat readiness. The study's investigator analyzed the effects of a pregnant soldier wellness program, including exercise and health education in regard to birth outcomes, health care costs and soldier postpartum physical fitness. Findings indicated that soldiers participating in the program were more likely to carry their babies to term, their babies had higher birth weight and there were fewer birth complications. Hospital costs for the care of each soldier in the wellness group was significantly less than for soldiers who did not participate in the program. This research sparked a highly successful nurse managed program at Fort Campbell that enrolls active duty pregnant females; monitors and educates them as they proceed through their pregnancy so that these soldiers are returned to duty quicker, healthier, fitter.

Moving health care access out to the soldiers and their families, providing fast, "carry-out" health education for soldiers, promoting healthy lifestyles that focus on prevention of illness rather than intervention, are three ways that we are supporting the Army Medical Department to deploy a healthy force.

We support the second core function of deploying the medical force by ensuring individual medical readiness and the deployment of Army nurses who are specialty-trained to provide care in any contingency. Defining the term, "individual medical readiness", is crucial to our abilities to measure it, track it and promote it. One study funded by the Tri-Service Nursing Research Program lays the foundation for clarifying the concept of "individual readiness." The Army nurse researchers uncovered interesting go-to-war readiness variables such as psychological readiness and attitude readiness that extend beyond the variables we've traditionally used to define readiness, that is; immunization status or weapons qualification. We can use this information to develop training aimed at promoting a type of "comprehensive readiness coverage" that insures our medical personnel are mentally prepared and physically qualified to face the austere combat environment.

We have re-focused our specialty nurse training so that active duty nurses as well as our reserve component partners are capable of global deployment with the right skills and the right knowledge for the right mission. We implemented the reserve and active duty Emergency Nurse Course to increase our pool of trauma-trained nurses thereby expanding and improving our capabilities on the battlefield. We are training and graduating flexible advanced practice nurses; specifically, family nurse practitioners who play a pivotal role in TRICARE as well as any contingency environment. Based on the Tri-Service's urgent need to graduate the most flexible kind of nurse practitioners, the Uniformed Services University of Health Sciences (USUHS) instituted a one-year certification program whereby adult or pediatric nurse practitioners can become family nurse practitioners. This partnering between the Tri-Service community and the University opened three faculty positions for active duty instructors at the nurse practitioner schoolhouse. As the mission of the Army Medical Department changes and continues to evolve, we remain proactive in producing nurses who can meet the challenges of a dynamic healthcare environment.

Army nurses are an important linchpin in managing beneficiary care as accountable advocates. Several Army nursing studies that examined better business practices were funded through Tri-Service nursing grants. For example, a project dubbed the electronic housecall is using technology to improve access to care. This project, directed by a nurse at Eisenhower Army Medical Center in Georgia, furnishes interactive television nursing assessment of patients at high risk for complications and frequent admissions to the hospital. The project has been underway for more than a year and has provided over 200 telenursing visits to more than two dozen patients. Data shows that patients enrolled in this project are requiring less outpatient

clinic visits and fewer in-home visits. Community health nurses in Hawaii are using telehealth technology to reduce the potential for child abuse and neglect with a Department of Defense sponsored program called ASPECTS, an acronym that stands for "A Solid Parenting Experience through Community Teaching and Support". Long range goals for this program include utilizing real-time images, voice, worldwide web and Internet chat rooms to provide enhanced 24-hour access for the program's parents to resources that support their learning process. The program just completed a research study that demonstrated a reduction in child abuse and neglect tendencies as well as the unexpected finding of 99 percent child immunization rates.

Army nursing continues to use research as the mortar linking science with clinical practice. The Tri-Service Nursing Research Program is the foundation for this movement. Recently, a full-time executive director position was established, based on Institute of Medicine guidance, to provide oversight and maintain day-to-day operational management of the Tri-Service Nursing Research Program. The Army Nurse Corps had the honor of being the first to serve in this new position, which will rotate among the three services. The maturation and evolution of the program, with an ever-growing number of funded grants, now over 135, has demanded this oversight to ensure fiscal responsibility. The Tri-Service Nursing Research Program has enabled the creation of a partnership with the National Institute for Nursing Research. This initiative fosters the rapid translation of fundamental research findings into clinical applications and directs a portion of the Department of Defense investment toward military and peacetime operations; humanitarian assistance, and the urgent problems stemming from preventable illness, violence, and substance abuse.

Army nurses continue to serve soldiers and their families by preventing disease, promoting health and delivering specialized care. Wherever you find soldiers, sailors, airmen, marines or Coast Guard personnel, you will find Army nurses standing by, Ready, Caring, Proud.

In closing Mr. Chairman, I thank you and members of this committee for your ongoing support of initiatives to improve the delivery of care to our beneficiaries. Military nursing continues to be on the cutting edge of healthcare as well as a recognized leader in our profession through your commitment to a world-class healthcare system.

Senator STEVENS. Thank you very much, General.
Senator Inouye.

ENTRY LEVEL DEGREE

Senator INOUE. Mr. Chairman, I just received my second call to return to the Commerce Committee. So, I have many questions I would like to submit to the panel, but I have one question I want to ask for the record here.

As most of you are aware, I have been following nursing careers ever since the end of World War II, and I have noted that since the end of that war, the entry level for nurses has always been a professional bachelor's of science baccalaureate degree. This has provided you the independence, the professionalism that is necessary in your work. But now I gather that OMB is recommending that the entry level be reduced to an associate's degree. I personally think it is a bad step, and I hope you agree with me. What are your thoughts?

General SIMMONS. Sir, thank you for that statement. We cannot afford to let the associate degree be the entry level in the Army Nurse Corps. The standard for professional military officership is minimally the baccalaureate degree.

In addition, in an ever-increasing complex health care delivery system, we need to ensure that we have the very brightest and very best providing care. The only way to ensure that nursing as a discipline is at the decisionmaking table in the health care delivery system is to ensure that we are comparably leader developed and educated as the rest of our colleagues. To compromise that in

any way is to subjugate us in the organization and to decrease our ability to be at the table in our organizations.

Senator INOUE. Thank you.

Captain GARDNER. I would certainly endorse everything that General Simmons has said. It is my understanding that for the moment OMB has agreed to support us, but will ask for a separate independent study of associate degree prepared nurses. And that is fine. We would be glad to support and provide that information. It is readily available about the differences between associate degree graduates and baccalaureate graduates, and what we need is the additional training and experience and education that a baccalaureate has because of the unique role of a leader as well as a nurse.

ENTRY-LEVEL QUALIFICATIONS FOR AIR FORCE NURSES

Senator INOUE. General.

General STIERLE. I would agree with what both of my colleagues have said.

In addition I would say—I think General Simmons hit on it a little bit in terms of flexibility—that in the military you really have to be a generalist, and a baccalaureate education provides our nurses with the additional skills and knowledge that they need to be able to operate successfully in many different environments. We are not talking just about inpatient care. As health care moves into the ambulatory care setting, as we become more and more involved with prevention and community health care, individuals that are trained at the ADN level absolutely do not have that knowledge and skills.

Senator INOUE. Thank you very much.

May I be excused?

Senator STEVENS. Yes, sir. Thank you.

General Simmons, you spoke about the physical training study. Have you published the results of that in places like the Journal of American Medicine and that sort of thing?

General SIMMONS. Yes, sir; the results of that study—sir, it was funded by tri-service nursing research in 1997 and it is pending publication right now. But we have numerous examples of studies that have focused on wellness of soldiers to include certainly female soldiers, sir.

Senator STEVENS. I think that is the kind of thing that we can do for the general community is to make available the results of studies like that. I am a prostate cancer survivor. We have a whole series of statistics now coming out following people in the military, men who have had prostate problems. The whole concept now having this enormous force of women in uniform is that there is a statistical base there, and the results of these studies can be shared with the public at large. I hope that you will do that and follow through on it.

I also want to congratulate you very much in terms of what you are doing to shift the concepts of military health care delivery to focus on prevention rather than on really intervention and in-hospital care. The concepts that you have with collocating your health care facilities in the family housing areas are extremely beneficial to all concerned.

I understand that those are at a very limited number of facilities. Can you tell me why are those programs that have been so beneficial just at a limited number of military facilities?

General SIMMONS. Sir, I think the move toward wellness, obviously consumer driven, takes time. Health care has always been hospital based. It is totally a different mindset and we have to evolve as well. We are hospital based. The structures are based on where people come when they are sick. The initiatives to put wellness centers, health promotion centers in family housing areas is evolving, slowly but surely, but we also have to resocialize ourselves and our consumers of health care to be responsible and accountable for their own health care rather than coming to a health care provider to treat them when they are sick. We are resocializing ourselves. We are resocializing our consumers, just as mainstream America is doing the same.

That does not really answer your question, but it is happening, probably not as quickly as any of us would like to see, but I would say that we are making steady progress, sir.

PHYSICAL TRAINING/BREAST FEEDING

Senator STEVENS. Well, the results of your study on physical training—has a directive gone out in the services to women who are in all the services to pursue the physical training tactics?

General SIMMONS. Yes, sir; initially when women became pregnant, they sort of became physically inactive. As a result of this study, we have at least one-half of our installation wellness programs for pregnant soldiers to keep them ready, to keep them actively engaged in their units. So, the findings are disseminated in the Army and in the other services, and all of those programs to keep women healthy during pregnancy, to return them to duty very quickly, to ensure that they deliver healthy babies with few complications and decrease the cost of the hospitalization and recovery are again, sir, happening very, very successfully.

Senator STEVENS. What are you doing about breast feeding for soldiers and people in the service?

General SIMMONS. Sir, breast feeding. General Stierle probably wants to answer that. [Laughter.]

AIR FORCE BREAST-FEEDING PROGRAM

Senator STEVENS. We are very pragmatic up here. I am looking at some programs now trying to find ways to assist women in the economy in general to have access to breast feeding time and to assure that they can follow their own desires in that regard but have available time for that.

Are you looking into that in the services?

General STIERLE. Well, I think again that Put Prevention Into Practice Program and the focus on health promotion in terms of educating not just the medical community but the line community. Recent studies, that have been done, show the advantages that breast feeding has for the child throughout the course of their lifetime. So, it is making sure that we get this information out there so that there is support for these individuals that want to breast feed and, not only those that want to, but also trying to increase

the numbers that will breast feed in terms of the long-term benefits.

Also when you were speaking about what we are doing to try and get the word out in regard to various nursing research studies that have been completed, we are partnering also with USUHS to develop a central repository for all of the tri-service nursing research. It will also then tie into the national data base, so that we do not necessarily have to keep replicating and we can build upon research that has been done in the past.

Senator STEVENS. I am going to put someone in touch with you all to see that we have your ideas as we go into this new concept of legislation to assure that there is a national policy that allows for time. In my State, 70 percent of the women of childbearing age work out of their home, and this is becoming a sizable problem now to assure that the facilities are available, that the people understand, particularly the male employers understand, what their obligations are to see that the woman can follow the procedures she wants to follow with regard to her child.

CAREER PROFESSIONALS

Let me talk to you about another thing. I think you heard I have sort of got a technology bent here lately. The advancements in technology, particularly in medical technology, are creating new careers now for professionals that are nonphysicians. What are the nurses doing about examining those careers and determining which should be in the Nurse Corps and which should be in any other part of the armed services?

The technology really I think is coming very rapidly, the angio-CT and all those things. You do not have to be a physician to be involved, but they are going to require very capable career professionals. Tell me, what is your thinking about that?

General SIMMONS. Sir, as we look at scope of practice issues, what constitutes appropriate practice for nursing, we collaborate with all members of the team, the physician, the physicians' assistant, our clinical medical service corps officers, to identify what skills we need to best provide beneficiary care in a resource efficient manner that translate, oh, by the way, to our go-to-war skills.

There are some skills, if you talk about advanced procedures and techniques that are the basis for graduate medical education. Some of that in our health care delivery system will almost always be provided by physician providers because of graduate medical education and the need to prepare physician providers.

But as we look at resource efficient primary care, maintaining health—you mentioned earlier about physical exams and the components of those. The role of the nurse practitioner to keep people healthy rather than treating disease, that is, someone comes in for an annual physical, needs a colonoscopy and all those other things associated with wellness. That role is indeed happening as we speak in our family practice clinics, in our adult primary care clinics to maximize the ability of every member of the team, the nurse practitioner, the PA, to maximize the skills that we have and at the same time ensure that we get our beneficiaries to the right place that we maintain physician subspecialty care for the sickest and maximize our own ability to keep our beneficiaries healthy.

Senator STEVENS. Captain, we saw a demonstration of the use of telemedicine in operating procedures. I am sure you have seen the same demonstration. What is the Navy doing? Are some of those professional requirements being filled by nurses in the Navy, highly technical medical delivery services?

Captain GARDNER. As far as delivering health care via telehealth, we are doing this to a certain extent, but along the more traditional lines of the providers that we have right now—for instance, the nurse midwives have been heavily involved in some telehealth with both conferencing, consulting, and with educating their population.

Where we have more involvement, rather than increasing the technological skill level of the providers by using telehealth, is where we have more nurses involved in the policy and planning of telehealth and how best to leverage it for all health care personnel. We have people involved in the computer-based patient record development which benefits all of the providers, as well as the patients.

We have people involved in the radiology and picture archiving technology system, not as the individual who is going to read the technology, but the individual who plans how best to utilize it once it is in place and where best to put it.

We have other nurses involved in the clinical information system that again is a system used by more than just nurses. You are going to seldom find things that are just targeted toward one provider but really require the collaborative team, and that has been our place in the telehealth business to date.

TELEHEALTH

Senator STEVENS. General, you started to answer.

General STIERLE. Yes; in the U.S. Air Force, again, one of our unique missions is global aeromedical evacuation. General Roadman addressed care in the air. We are going to be transporting stabilized versus stable patients—more critically ill patients than we have ever transported in the history of the Armed Forces.

Again, telehealth, is going to be an important concept of caring for those patients in the air. It is going to become increasingly more important that we be able to transfer real-time information from the air to the ground and back to the air. We must be able to consult with people on the ground in regard to patients that may deteriorate in flight and need things changed.

Actually the delivery of care in the aeromedical environment is predominantly nursing. That is going to be changing over time. We are going to have more physicians and respiratory therapists involved than we have had in the past. But historically it has been predominantly a nursing care environment.

But getting back to again what you are saying about advanced technologies and who are we allowing to do what, I think, again, the Armed Forces has always been an example of where we have typically allowed people to practice beyond the traditional scope of practice because of wartime requirements.

All three services have been looking at very intently at positions and they need to be a specific discipline or be corps neutral. We have individuals very qualified to practice in many different areas,

and we should not deprive them of opportunities to expand into other areas of practice, based on historical practices.

Senator STEVENS. Very good. We thank you very much.

Senator Inouye and I will send a letter to OMB about the issue of lowering the educational requirements. We would not like to see the situation develop where we have to put a prohibition in law but I think they might get the message. We hope they will.

General SIMMONS. Thank you, Senator.

Senator STEVENS. We do thank you for what you do, and I commend the way that you are moving into these areas and assuring us that we have the ability to carry out the plan which is downsizing, to a great extent, the people who are involved in military hospitals. More and more the system is going to rely upon the physicians' assistants and the nurses who are going to take on particularly this outpatient load that is increasing as the facilities are closed. So, I want you to know Senator Inouye that I have had a great interest in this over the years. We hope you will keep us informed if you run into any difficulties.

ADDITIONAL COMMITTEE QUESTIONS

And we congratulate you on the studies you are doing too. I think they are very beneficial.

So, thank you very much. I am looking forward to seeing you again.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTION SUBMITTED TO BRIG. GEN. BETTYE SIMMONS

QUESTION SUBMITTED BY SENATOR DANIEL K. INOUE

TELEHEALTH

Question. How has nursing interfaced with telemedicine/telehealth?

Answer. The Army Nurse Corps has two ongoing telenursing initiatives, two research studies with a telehealth focus and a distance learning initiative.

Telenursing initiatives

A telenursing project at Dwight D. Eisenhower Army Medical Center in Georgia furnishes interactive television nursing assessment of patients at high risk for complications and frequent admissions to the hospital. The project, funded through DOD, Medical College of Georgia, the medical facility and Georgia Institute of Technology, has been underway for more than a year and has provided over 200 telenursing visits to more than two dozen patients.

Community health nurses in Hawaii are using telehealth technology to reduce the potential for child abuse and neglect with a DOD sponsored program called ASPECTS ("A Solid Parenting Experience through Community Teaching and Support"). The program just completed an intensive, valid and reliable research project that clearly demonstrated the program is in fact reducing the potential for child abuse and neglect within the targeted high-risk population. Long range goals for the project are to increase the nurse's frequency of contact with patients and allow them to assess potential problems more quickly and efficiently, thus making the nurse more responsive to the family's needs.

Telenursing research

One nursing study funded by Project Akamai is aimed at identifying key factors of patient and provider satisfaction with telemedicine. The nurse researcher intends to use data collected during the study to develop a survey instrument geared toward evaluating the impact of telemedicine on the science of medicine (technical/instrumental aspects of care), the art of care interpersonal/expressive/communicational aspects of care) and the amenities of care (properties of the setting in which care is

provided). The finalized instrument will provide guidance and a quality focus for emerging telemedicine systems.

A nursing study funded by the TriService Nursing Research Program is developing a monitoring system using piezoelectric film material to provide an accurate measurement of patients' vital signs in high-noise, high-vibration environments such as MEDEVAC helicopters or combat areas. The piezoelectric material is built into MEDEVAC stretchers and is picking up pulse and respiratory rates very effectively, even through Battle Dress Uniforms.

Distance learning

The DOD/VA Distance Learning Project (initiated in Fall, 1997) at the Uniformed Services University of the Health Sciences, successfully links DOD and VA assets to collaboratively implement an accredited academic post-master's program. The program is designed for clinical nurse specialists practicing at VA or DOD Medical Center facilities who met the admission criteria. It will award a certificate in adult nurse practitioner education and graduates will be eligible for national certification. The interactive teleconferencing technology located at USUHS is the broadcast site that connects with eight offsites for two-way (audio and video) interaction. This program will reduce educational costs by electronically reaching out to different work-sites across the country. This project can offer recommendations for further uses of distance learning.

QUESTION SUBMITTED TO CAPT. MARY ANNE GARDNER

QUESTION SUBMITTED BY SENATOR DANIEL K. INOUE

Question. How has nursing interfaced with telemedicine/telehealth?

Answer. Expertise in information management, computer and database technologies applied to nursing is being operationalized. More nurses are gaining masters' degrees in nursing informatics and becoming certified each year. This knowledge is being utilized in our military medical treatment facilities, at information management commands, and by health care policy staffs. Examples include the following:

A Navy Nurse Corps Commander is the Project Officer for Joint Imaging Technology Project Office (JITPO) under the direction of the Telemedicine Program Office.

Triservice personnel as well as government/contract civilians are responsible for the planning, coordination and installation of Picture Archiving Communication Systems for digital radiography and management of 31 sites valued at more than \$100 million.

Clinical Business Area.—Navy Nurse Corps officer is assigned as Functional Manager. Navy nurse participation in telemedicine is growing. Although primary use is currently physician-focused and directly applicable to radiology, pathology and medical education applications; nurses are becoming increasingly more involved as clinics, hospitals and ships begin to utilize telemedicine as an adjunct in the delivery of health care. Further examples of Navy nurse involvement in telemedicine/telehealth are:

Distance learning:

Presentation of a Bicoastal Emergency Room/Critical Care Nursing conference.

Participation in joint Department of Veterans' Affairs/Department of Defense distance learning program.

Participation in USUHS distance learning for Certified Registered Nurse Anesthetists to obtain Masters of Science degree.

Telemedicine/Telehealth application is a high interest item for the Military Nursing Chiefs. Future uses of telehealth by nurses and corpsman are envisioned in independent settings such as wound care clinics and through an extensive array of patient education opportunities.

SUBCOMMITTEE RECESS

Senator STEVENS. We are going to recess now. On April 22 we are going to have the ballistic missile defense program before the subcommittee, and we will announce the room at a later date. Thank you very much.

[Whereupon, at 11:55 a.m., Wednesday, April 1, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, April 22.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

WEDNESDAY, APRIL 22, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Shelby, Hutchison, Inouye, Bumpers, and Dorgan.

DEPARTMENT OF DEFENSE

BALLISTIC MISSILE DEFENSE ORGANIZATION

STATEMENT OF GEN. LESTER L. LYLES, U.S. AIR FORCE, DIRECTOR

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning. We are pleased to welcome you to discuss ballistic missile defense [BMD] programs. There are many other committee meetings going on this morning. I have no knowledge of how many other members of our committee will get here today. I do hope others will come if they have questions.

When we met 1 year ago, we were still on the verge of a fifth bad intercept attempt. We are awaiting the first PAC-3 intercept attempt, and we are anticipating the selection of a lead systems integrator to permit the National Missile Defense Program to proceed.

The underlying progress—there is underlying progress in many areas, both the national and defense interceptor secrets have been successfully flown and collected data. Further significant integrated testing has been completed on THAAD and the PAC-3 interceptors, testing which will, hopefully, lead to successful flight tests. I am sure you will highlight other progress made in this past year as you outline the fiscal year 1999 budget request. I think we need to be conscious of what lies ahead.

The Defense budget is likely to be flat for the foreseeable future. Together with other members of this committee, I have been and will continue to be a strong supporter of the Ballistic Missile Defense Program. These programs to me are still very essential. The tight budget environment will provide less tolerance for cost growth and troubled programs. We need to work with you to ensure that your programs are structured for success, with adequate ground and flight testing to develop a combat ready system.

The supplemental spending bill is moving to conference now. It does include funds to enhance the integration and testing of current theater ballistic missile defense systems. I want to welcome your thoughts on the initiatives recommended in the supplemental, many of which were highlighted to the Congress by Deputy Secretary of Defense, Mr. Hamre.

You have a tough job, General. We want to help you whenever possible. We look forward to your testimony, and I'm going to make your full statement a part of the record. Before you proceed, when he arrives—Senator Inouye will be late—we will ask him to make his opening remarks when he comes and will reserve a place in the record here for his statements if he wishes to make any.

General LYLES. Yes, sir.

Senator STEVENS. I have to tell you I am a little frustrated with what is going on up my way in terms of that Kodiak test site. I do hope to get a chance to talk to you about that, either here today or later.

General LYLES. Yes, sir.

Senator STEVENS. But I would be pleased to have your comments at this time. Thank you, General.

OPENING STATEMENT

General LYLES. Thank you, Senator. Mr. Chairman, it really is a pleasure to be back here to present the Department of Defense's Ballistic Missile Defense Program. Mr. Chairman, I do have a formal statement that I will submit for the record and some brief remarks I would like to go through, and I promise to keep them brief so we can welcome your comments and the comments of the other members.

Mr. Chairman, over the past few years, Congress and the administration have consistently directed that the Ballistic Missile Defense Organization [BMDO] focus on three priorities for our missile defense programs. The first priority is developing and fielding highly effective theater missile defense programs or TMD as we refer to them. The second priority is developing for deployment a National Missile Defense Program and a third is maintaining a substantial advance missile defense technology program.

Mr. Chairman, our fiscal year 1999 budget request reflects those priorities, and it maintains both program focus and momentum to try to keep the challenges we have ahead of us on the right track. To outline very quickly, Mr. Chairman, our total BMDO fiscal year 1999 budget request is \$3.6 billion. This includes \$3.1 billion for research, development, test, and evaluation; \$409 million for procurement; and \$17 million for military construction.

When you combine these three budget categories and you look at the aggregate in terms of percentages, theater, air, and missile defense account for \$2.1 billion of that \$3.6 billion or roughly 59 percent. NMD, the National Missile Defense Program represents \$962 million in fiscal year 1999, or 27 percent. Advanced technology is \$253 million, which is about 7 percent of our budget, and something we call generically technical operations which includes infrastructure support for all of the other programs is \$194 million or 5 percent of our budget.

There are two new categories for fiscal year 1999, Mr. Chairman. One is threat and countermeasures. A program that owes a lot of credit to Senator Cochran for the strong support he's given us in trying to make sure that's a robust effort. And the next is international cooperative programs. Now, these are not new efforts, but we've aggregated them in a different manner. Together they represent \$72 million or about 2 percent of the BMDO budget.

Mr. Chairman, I don't need to tell you our experience over the last couple years reaffirms that developing and fielding missile defenses is not an easy task. It's a unique challenge in many respects. And all of us who participate in this challenge realize how difficult it really is.

BALLISTIC MISSILE DEFENSE MISSION AREAS

Ballistic missile defense should not be looked upon as individual programs, but literally as an entire mission area. As an example, in theater missile defense, we're trying to develop a family of systems. And that's not just BMDO that's making that statement. We recently had several of our CINC's, including Admiral Gaman from an Atlantic command talk to the Joint Requirements and Operations Counsel, the JROC, within the Joint Staff emphasizing that we need to look at theater missile defense as a family of capabilities, interoperable capabilities.

Those family of systems have to be interoperable with each other. They have to complement each other to provide what the war-fighter needs in terms of capabilities. And as the committee is keenly aware, when conflicts arise, the military fights jointly. They do it in an integrated manner, and we have to make sure that we're procuring systems and acquiring and developing them in that same joint manner. That's what interoperability and in some respects what our organization is all about.

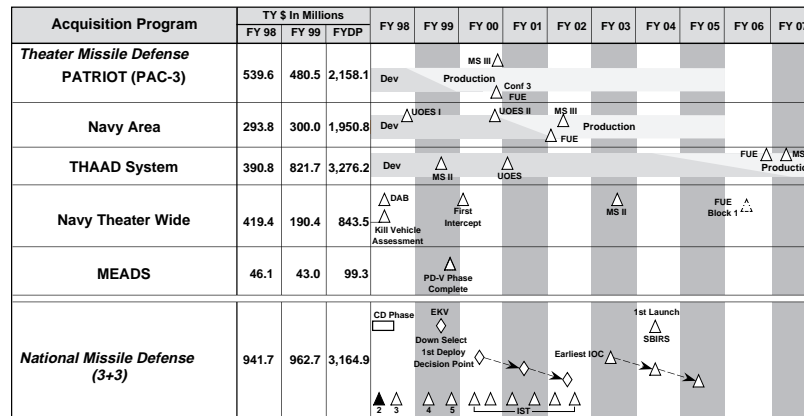
Mr. Chairman, this past year, the Department of Defense has given BMDO an added responsibility. About a little over 1½ years ago, we were directed to develop and integrate a joint architecture for not just ballistic missiles threat, but for cruise missile defense also. We're bringing together those two architectures, and we really are trying to do them from a joint perspective. We call this integrated activity theater air and missile defense. And our task is to provide a joint architecture for both sides of that particular problem.

Mr. Chairman, in spite of our many challenges, I can tell you literally that we are on the verge of fielding a comprehensive interoperable and highly effective missile defense system that's responsive to the existing and to the emerging threats to the United States. And clearly, this is due in no small part to the very, very strong support we get from Congress.

I provided a set of charts which outline the details of our programs and the details of what we're trying to do. I would not go through each one of them in detail. I'll just very quickly list them and tell you what's in them, and they have been provided for the record, and we can literally answer any questions associated with each one of them.



BALLISTIC MISSILE DEFENSE MASTER SCHEDULE


Acronyms:

MS - Milestone	UOES - User Operational Evaluation System	PD-V - Program Definition-Validation
CD - Concept Definition	FUE - First Unit Equipped	IFT - Integrated Flight Test
DAB - Defense Acquisition Board	IOC - Initial Operational Capability	IST - Integrated System Test

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The first chart illustrates the master schedule for our theater missile defense programs and for our NMD Program. It outlines the current funding shown on the chart, the fiscal year 1999 request, and our projected future years defense program of FYDP level for each one of those specific programs.

In addition, the chart outlines some of the key milestones for each one of those major defense acquisition programs and including when they will go into production and when we will actually start fielding them. While TMD and NMD comprise the lion's share of our budget as I mentioned earlier, as I stated also, we're developing very critical missile defense technologies.



BALLISTIC MISSILE DEFENSE ADVANCED TECHNOLOGY MASTER PLAN

TY \$ In Millions

Program	FY 98	FY 99	FYDP	Remarks
Advanced Technology	409.4	253.5	1,215.7	
• Space Based Laser	122.1	58.8	293.4	Advanced Concept For Space Based Global Coverage Missile Defense From Space
• Advanced Interceptor Technologies	33.0	24.5	97.1	Advanced Technology Test Bed For Integrating And Testing The Next Generation Endoatmospheric Interceptor
• Discriminating Interceptor Technology Program	27.3	25.3	186.1	Exploring Tomorrow's Technology Today To Make The Next Generation Exoatmospheric Interceptor Affordable And Capable
• Phenomenology	30.9	20.2	76.5	Ensuring That The "Eyes And Ears" Of The Defensive System Are Keenly Tuned To The Evolving Missile Threat
• Innovative Science And Technology	64.5	24.0	198.8	Innovative Approaches To Exploit Latest Technical Discoveries For Improved Performance At Lower Cost
• Small Business Innovative Research	49.1	61.5	287.7	Harnessing Small Business Innovation For Advanced Missile Defenses

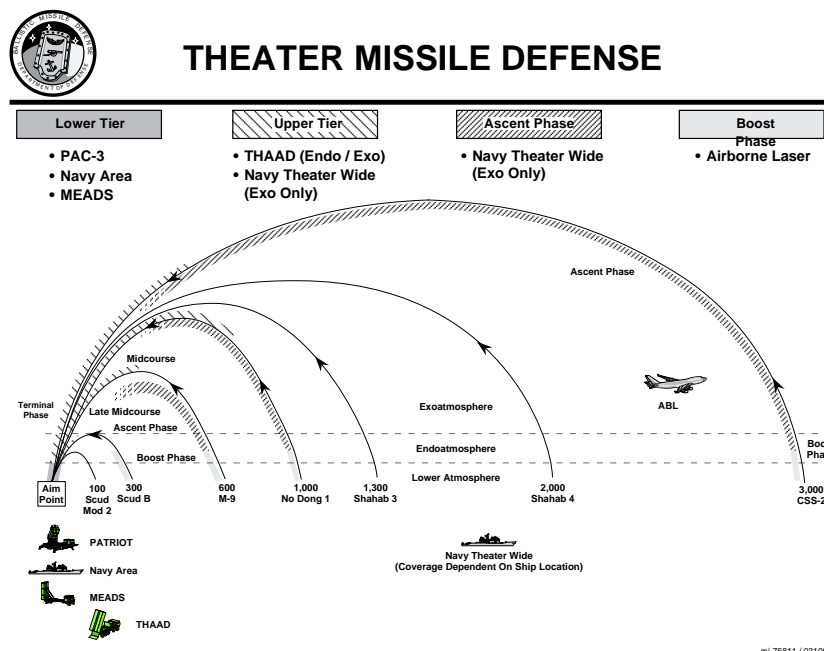
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The second chart, Mr. Chairman, lists some of those key efforts. And that's just a subfit of all the things we're doing in technologies, but those are some of the major efforts that we are embarking upon.

AFFORDABILITY

Mr. Chairman, my prepared statement also provides some detailed information on cost control. And I think it gets to the heart of one of your comments. Affordability is a very, very important parameter for all of us. I can tell you literally in the past when we talk about missile defense programs, we talked about performance, we talked about schedule.

I can tell you and promise you, Mr. Chairman, that affordability is now a major part of our efforts for each one of our programs. My prepared statement outlines some of the major things we're doing to ensure that we are addressing affordability for each of our specific programs. I have insisted not to just my own office, but to the executing agents that we make sure that all of our programs are not just effective, not just timely, but they're also affordable. And we're doing a lot to make sure we can bring that to fruition, and I'd be happy to address any questions or concerns anybody might have about what we're doing in the area of affordability.



My third chart, Mr. Chairman, illustrates something I think you've seen before and I think the committee members are very familiar with. It talks about the battle space, the battle space covered by each one of our programs. We show this to show and illustrate that each one of our programs has a unique niche. They are all extremely important. All of them are required to ensure that we really do have robust and effective theater missile defense systems.

While we're emphasizing affordability, we also emphasize that we need to have all of our programs because of the unique nature that they provide in terms of protecting us against the threat.

MAJOR PROGRAMS

Mr. Chairman, I'd like to briefly give you an update on each one of our major programs. I will keep this very, very brief, again, in the interest of time. I want to just highlight some of the key areas associated with them.

Let me start with PAC-3. The PAC-3 Program is currently in the engineering, manufacturing, and development phase, EMD, for our development and acquisition cycle. It's currently being fielded in three phases, that is PAC-3. We currently had the first two phases already in the field. And as a matter of fact, if something had taken place in the Middle East over the last couple of months, we would have had the capability in the Patriot Program to have those first two phases in the field. And I think had the capability to counter any threat that exists in today's environment.

The third and final configuration for PAC-3 is the most important one, however. And that is bringing on the hit-to-kill lethality methodology for PAC-3. That is extremely important because that

is the kill mechanism we think is required to counter weapons of mass destruction whether they be chemical, biological, or nuclear warheads. The hit-to-kill technology is the key element of both the final variant of PAC-3, it is also the key element for our Theater High Altitude Area Defense Program for our Navy Theater Wide Program and also in a different form for the National Missile Defense Program.

And so this is an important parameter. And PAC-3 will be the first system that will demonstrate that. We are currently maturing and preparing for our first intercept of the PAC-3 Program. That intercept is now scheduled to take place in the midpart of the summer, roughly the latter part of July or the early part of August. We're making sure that every step in our preparation for the testing is being done accurately and thoroughly. We've had some delays, but I think we're now on track to have a successful intercept at the midpart of the summer.

Our other lower tier program, the Navy Area Program, following last year's successful intercept flight test is now also in EMD phase, engineering, manufacturing, and development phase of our acquisition cycle. The program commenced development flight tests in fiscal year 1999, the early part of fiscal year 1999 following some operational evaluation sea trials being done for the aegis fleet which will take place in fiscal year 2000. And we plan to have first unit equippers for the Navy lower tier program in 2001, and that program is on track to meet that specific date. Switching now to the very robust things we need to have to really counter the threats of the future, the long-range and medium-range threats possibly carrying weapons of mass destruction. The Theater High Altitude Area Defense Program or THAAD is one of our two Hallmark upper tier programs. It's the one that's pacing the effort in terms of schedule, and the one that we're looking for to getting that capability as rapidly as we possibly can. It complements the program we have with the Navy, the Navy Theater Wide Program. Mr. Chairman, in fiscal year 1997 as a result of all the failures we had following four attempts for an intercept with the THAAD Program, we conducted a series of detailed evaluations, detailed reviews, and detailed tests to ensure we understand how robust the THAAD Program is and specifically how robust the design is.

We worked very closely with the prime contractor, and I am very confident that the prime contractor is doing everything they can to ensure they are working with us to have a successful THAAD Program. We've completed those detailed reviews, and I can tell you the basic premise of those reviews is that we have a sound design for the THAAD Program. We had some concerns about the reliability, concerns about the margins of the testing that we've done in the past, but in terms of the basic design both we, the Government, and the contractor feel very, very confident about that.

THAAD TESTING

Nevertheless, I want to outline some of the key tests we've done over the last year. We've done ground testing. We've done specific subsystem hardware testing. We've done systems testing at an aggregate level. We've done subtesting for all the various components. We've done software testing, and we've done hardware in the loop

testing. And amongst those testing, I think probably the most key are tests to ensure that we understand how reliable the components are and what design margins we have in the components.

Those latitude tests, I think, get at the heart of why we had four specific, but unique failures in our four attempts for intercepts to date for the THAAD Program. Both we and the contractor are very confident that we have addressed the right kinds of testing, and we think we're prepared to proceed to a very successful intercept for the THAAD Program.

The next THAAD intercept attempt is scheduled for the month of May. Roughly the midpart of May, we think we'll be prepared to do that test. We've had some slips, some minor slips as we prepared for the test, but I'm very confident that those slips were for good reasons because we identified in some of those tests some questions we didn't have answers to. In the past, we would have flown anyway. In today's environment, we want to ensure that we have a successful program, so we went back and did more testing to ensure that we understand how robust the design is, hence, the delays in our program. But we're now ready and on track to proceed to a successful intercept in the May timeframe for the THAAD Program.

Mr. Chairman, I think one issue that's been of concern to the Congress and also a concern to the Department following the successful THAAD intercept test, our current plans were to proceed to a user operational evaluation system or UOES for THAAD. Under this plan, we would have procured 40 UOES missiles for the program. That is currently our plan, but I want to assure you that we're not going to do that, we're not going to proceed along that plan based just on that one intercept flight test.

We actually have always had in the program a robust series of ground tests and hardware tests and software tests before we actually committed all the dollars associated with the UOES Program. There have been some roughly \$190 million of commitment today in the cost to the UOES Program. Most of that money has been associated with battle management command and control with the launcher, with all the support activities associated with the total THAAD system.

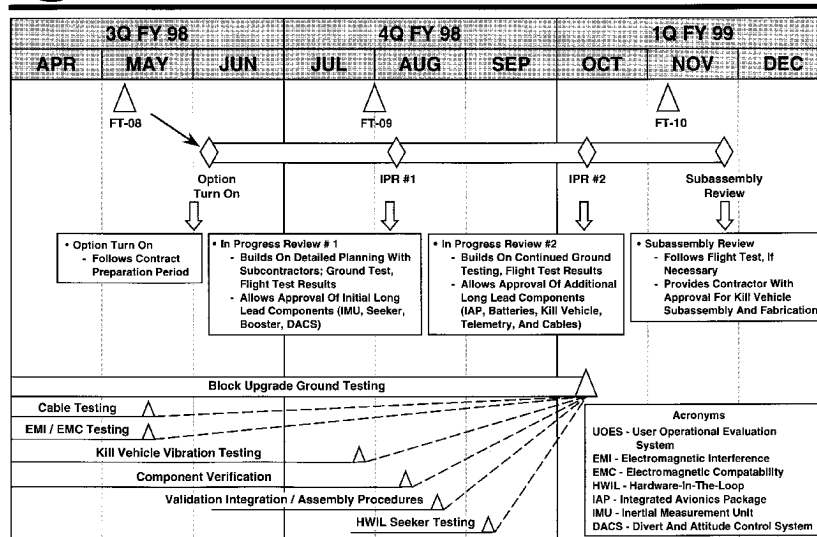
USER OPERATIONAL EVALUATION SYSTEM

The one area that's been hanging out because of our failure to have a successful intercept has been buying the UOES missiles. And that's the part we would have committed dollars for assuming we have a successful intercept. There's some \$67 million roughly that would have to be committed this fiscal year with that successful intercept. But I want to assure you again, Mr. Chairman, we've laid out a step by step approach to ensure that before we commit all those dollars, we understand exactly how good the design is.

The next chart you have in your package lays out that step-by-step approach.



THAAD UOES OPTION EXECUTION ACTIVITIES



It showed the series of tests that are being done in the hardware and ground environment. It also shows that we actually scheduled to have two more flight tests and will complete them before we make our final commitment of dollars to the UOES Program. I think this is a sound approach, and I am committed to make sure we stick to this to ensure we address everything we need to know about THAAD in the THAAD UOES Program before we commit very, very valuable dollars to the specific initiative.

We think UOES is a smart thing to do, but we want to make sure we know everything about the program before we make the final commitment of dollars. I'll be happy to answer any questions that anybody might have about this approach.

NAVY THEATER WIDE

Let me switch, Mr. Chairman, very quickly to our other upper tier program, the Navy Theater Wide Program. We are preparing to enter into a Defense Acquisition Board Review for the Navy upper tier program this summer. This will give us an opportunity to have the first milestone review of the Navy Theater Wide Program. We're looking at an evolutionary acquisition strategy for the Navy Theater Wide Program.

This consists of an initial block one capability that we will plan to procure as quickly as we possibly can followed by sometime in the future with a more capable block two. The block one will have the capabilities we need to address the threat at the time, but we ultimately want to get a full up block two capability no later than the year 2010 or somewhere around that.

I fully endorse this evolutionary acquisition approach. I think it's a wise thing to do, both we and the Navy program office are com-

mitted to make sure that we lay out the right kind of strategy and get support for that strategy so we can embark on that program.

During this POM development for this year, for the year 2000 to 2005, we are working very aggressively to understand the types of program, total program, we need for the Navy Theater Wide Program, trying to get the capability no later than 2006, but looking at opportunities to try to move it back as much as we possibly can and specifically in an approach that could give us the capability by the year 2005.

MEDIUM EXTENDED AIR DEFENSE SYSTEM [MEADS]

Finally, Mr. Chairman, in the area of theater missile programs, let me quickly talk about the MEADS Program. As you know, this is our cooperative program with Germany and Italy. It is currently in the project definition and validation phase. The program, that phase, is scheduled to be completed in the first quarter of fiscal year 1999. This is a program that is very important to us in terms of its specific requirements that's giving us a maneuverable system with 360 degree coverage to protect the maneuver forces in the kinds of environment we think we're going to see in contingencies in the future.

The Department is committed to make sure we address both the requirements and how we might get the MEADS Program into our inventory. We addressed this during a quadrennial review. Other Defense priorities, however, precluded us from addressing anything more than the fiscal year 1999 budget. We had the responsibility, and I am now addressing a wide range of alternatives working with the leadership in the Department to see how we can get a viable MEADS Program to continue and to get it into our POM and our program for the out-years. We are looking at those alternatives, and we will be able to address something relative to MEADS in our POM development.

AIRBORNE LASER

Mr. Chairman, one area that I did not address in terms of our total architecture for theater missile defense is airborne laser. I know you're very familiar with that program and what unique niche it provides in terms of providing a space intercept capability force. While airborne laser is not in my specific portfolio, that is we do not provide funding for it within BMDO, it is a very, very important part of our architecture.

I could tell you I feel very, very comfortable with that program being worked by the U.S. Air Force. I know they feel very strongly about it and have committed the resources to the program. I think they're doing the right things to ensure that they mitigate all the technology risks associated with this new endeavor and that they are proceeding very, very well to ensure the program stays on track.

They keep me apprised very often on how the program is proceeding. And to my knowledge and what has been provided to me, it is progressing not just on schedule, but ahead of schedule. And all the things they're doing are very, very encouraging toward having a very, very successful Airborne Laser Program. And I whole-

heartedly endorse the effort that's being addressed in that particular effort.

NATIONAL MISSILE DEFENSE [NMD]

Let me switch very quickly to our National Missile Defense Program. Mr. Chairman, I know you're very familiar with it. It is, as you know, our primary program to provide defense of the United States, all 50 States. This program gives us the capability of providing a limited ballistic missile defense from either a rogue nation attack or to have some capability against a small accidental or unauthorized launch from one of the current nuclear powers.

You're very familiar, Mr. Chairman, with our Three-Plus-Three Program that we have embarked upon. This strategy we consider to be a right one, but it's a very ambitious program strategy in terms of schedule. But we are committed to it because it allows us to develop the NMD system as rapidly as we possibly can.

Under this program strategy, we will test and integrate all the different elements that are required to give us a total national missile defense system. We will do this in the next couple years and look to evaluate the threat and do an integrated test by the year 2000. And if this threat warrants it, we will be prepared to deploy the system within another 3 years, by the year 2003.

The program strategy is laid out so that if the threat does not warrant it, we will continue refining the development but always be prepared to deploy the system within 3 years of the identification of a threat against the United States. This program has actually made significant progress over the last year, Mr. Chairman.

We've conducted two tests, as you mentioned in your statement. Two very successful national missile defense exoatmospheric kill vehicle or EKV flight tests. Those tests were very, very encouraging toward reducing some of the risk and identifying what we know about being able to discriminate a real target in the exo environment in which the national missile defense system has to operate.

Both tests were very successful. Each test was done by one of two different contractors who were competing to be our EKV contractor. And again, we're looking forward to the successful completion of that effort as part of our National Missile Defense Program.

Also, as part of NMD in the very near future, literally in about 1½ weeks, Mr. Chairman, BMDO and our National Missile Defense Joint Program Office will announce the award of the lead systems integrator, our prime contractor for national missile defense. We have two very, very strong industry teams competing to be our prime contractor for NMD. The Boeing Co., and the United Missile Defense Co., which is a joint venture between Lockheed Martin and Raytheon and TRW.

I am scheduled literally, Mr. Chairman, to get the down select briefing tomorrow and to spend the rest of the time from tomorrow for the next week or so deliberating on my recommendation and decision for the prime contractor and then give that recommendation to the Secretary of Defense and others who are very involved and very interested in the National Missile Defense Program and then be prepared to make an announcement and to award the contract by the first week of May. We're on track for that schedule, and I am looking very much forward to the briefings tomorrow to ensure

that we can stick to the environment and the schedule that we have laid out for this program.

We have a very strong contractor team. The contractor team led by the Joint Program Office is a federated approach. We have strong support and a strong team that's developed in all aspects of this federated environment. At Huntsville, at Colorado Springs, in Boston, in Los Angeles, everywhere where there's an aspect of the National Missile Defense Program, we have developed and evolved a very, very strong team. And I feel very, very confident about our ability to execute the National Missile Defense Program ahead of us.

We're proceeding very, very well and progressing very, very well. And again, Mr. Chairman, I feel very confident about that.

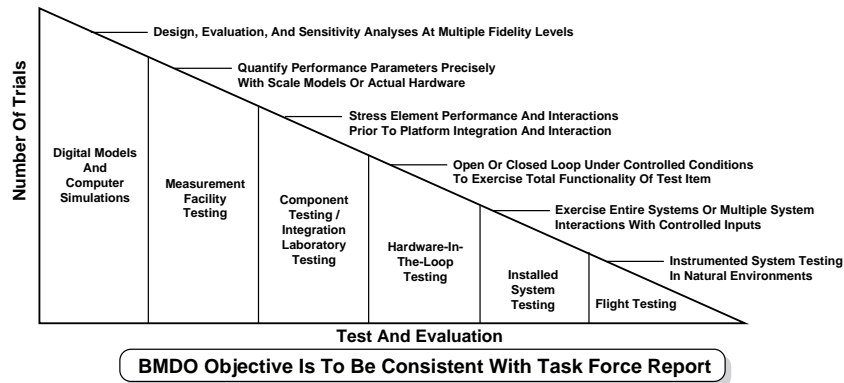
MISSILE TESTING

Mr. Chairman, let me just mention two other comments before I close. One is on the issue of defense testing. Missile testing is very, very important to us, and I think we all are very, very confident in ensuring that we have a very, very successful test program for all of our missile defense programs, whether we're talking TMD or national missile defense. I have one last chart that I've laid out in front of you.



BMD TEST PHILOSOPHY

- To Learn
 - Greater Reliance On Modeling And Simulation
 - Heavy Use Of HWIL And Ground Testing
 - Flight Test (Instrumentation)
- To Verify
 - Flight Test



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It reflects the testing philosophy for all of our programs. It just happens that this test philosophy matches the test philosophy done by our DTE defense test environment and test community, the independent test community. We are also very, very confident that we are trying to lay out our programs in the same manner that's reflected on this chart.

We have to make sure that we have a robust test program. Because of our compressed schedules, we don't have as many tests as I would like to see in programs of this importance. We also have, as I stated, some compressed schedules. So it's very, very important to us that we follow this hierarchy of tests. We follow the philosophy shown on this particular chart.

The independent test community has raised concerns in the past about how well we're doing this, and I think you're very, very familiar, Mr. Chairman, with a recent test report done by the Institute of Defense Analysis, Gen. Larry Welch and a lot of others including my former boss, Dr. Paul Kaminski, who have specifically reviewed all of our missile defense test programs. We chartered them. I was one of the sponsors to look at our programs.

They identified some concerns. And in some respects, I consider their report to be a wake up call to ensure that we don't deviate too much from the test philosophy shown on that last chart. As a result of that report and my concerns about making sure we do robust testing, we're going back and relooking at our—taking a relook at our theater missile defense programs and also at our national missile defense programs to ensure we know exactly the kinds of test we've done and whether there are some things that we need to do a little bit differently in terms of following this test philosophy. And I'm—what we find once we get a report out and continue our look see at how robust our test programs are.

We're committed to ensure that we have an aggressive program. The threat warrants that we do that, but I want to make sure we're doing testing in the right manner to ensure effective and successful programs.

ADVANCE TECHNOLOGY

Let me make my final comment, Mr. Chairman. The final comment talks about our third priority and that is advanced technology, making sure we continue an advanced and robust technology program. Just about 1 month ago marked the 15th anniversary of President Reagan's speech that launched the original Strategic Defense Initiative [SDI] Program. If you look back on our SDI Program, at the time, for very good reasons, we devoted some 70 percent of our budget to technology. The program was technology focused.

Today, if you look at our programs, because of our emphasis on getting rubber on the ramp or capability in the field, only about 6.8 or 7 percent of our budget is devoted to technology. I am not confident, Mr. Chairman, that that's the right amount. I have a vision that I've articulated to our program office and to all of our executing agents that we would like to get our technology budget up to about the 10-percent level.

That level matches the goals in the entire Department of Defense for advanced technologies. Now, I know the exigencies of the budget environment probably are not going to make it very easy for us to realize that 10 percent number. But we want to keep the stretch goal in front of us so we can try to ensure that we're doing everything we can to make sure we have a robust technology program.

And two specific actions that I've taken to help us even if we can't get additional funding in this area is to ensure that we're

leveraging the right kinds of technology funds with the money we have today and moneys in other areas within the Department of Defense. We started two specific things to ensure we do that.

One, I have commissioned and started what I call a Joint Technology Board. It's an effort to bring together the technology experts from all the services. I have on that Joint Technology Board the missile defense expert from the laboratories down at Huntsville, AL, from the Army. We have the missile defense experts from the Navy's Research Laboratory. We have the missile defense and space experts from the Air Force's Research Lab at Kirkland Air Force Base in Albuquerque.

Those people are part of my Technology Board to advise me on how we should spend our very precious technology dollars. They're also there to advise me where we may have plans to spend some technology money but somebody else in one of the other laboratories also has money devoted to that effort and how we might bring together our efforts so we can leverage, again, the very precious dollars that we have.

Part of the responsibility of this Joint Technology Board is not just to advise me, but also to help me and my office to lay out a technology master plan, a road map for where we need to be in the future with all of our technology programs and where we specifically need to apply our efforts, particularly to ensure we can address the threats of the future. We have our first variant, first entity of this technology master plan that was published just in the last month or so. We're now taking it out to the entire missile defense community throughout the entire Department of Defense.

We will also be sharing it with industry, and I think between these two efforts, even if we can't get our technology dollars up to about the 10-percent level, we will be doing a better job in the future of ensuring we have the right kind of focus on technology for missile defense.

CLOSING

Mr. Chairman, I'd like to close here. I've talked perhaps a little bit long because I wanted to assure you of the things we're doing to make sure we have robust and effective missile defense programs for the Department of Defense and for our country. I want to assure you and the committee members that we are absolutely committed to making sure we can provide those effective missile defense programs for our country and more importantly for our warfighters.

We want to make sure in both theater missile defense and national missile defense we have effective programs, we have interoperable programs, and we also have affordable programs.

PREPARED STATEMENT

Mr. Chairman, that concludes my remarks; and I'll be happy to address any questions you or the other members might have on this particular subject. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF LT. GEN. LESTER L. LYLES

Mr. Chairman and Members of the Committee, it is my privilege to appear before you today to present the Department of Defense's Ballistic Missile Defense (BMD) program and budget for fiscal year 1999.

Over the last few years, working with Congress, the Department of Defense has structured a comprehensive missile defense program that is responsive to the existing and emerging threat to the United States, our deployed military forces, our allies and friends. In years past we have characterized the BMD program as having three fundamental priorities: Theater Missile Defense (TMD), National Missile Defense (NMD) and Advanced Technology. While those priorities remain consistent today, I think we have modified them slightly to respond to emerging realities. First, increasingly, I refer to the program as missile defense instead of ballistic missile defense. This is because during the past year BMDO has taken on the additional responsibility for developing and integrating a joint architecture for theater air and missile defense (TAMD). I will provide greater detail on this matter later in my testimony. The next substantial modification has been the increased emphasis on NMD, with the designation of NMD as a major defense acquisition program (MDAP). This increased emphasis demonstrates that the Department's policy priorities are clear and remain consistent. Finally, we are focusing our advanced technology program to ensure that our resources are dedicated to those efforts that have direct pay off for missile defense technology needs.

Last year's Quadrennial Defense Review (QDR) reaffirmed the importance and priorities of the missile defense program, including the integration of Cruise Missile Defense (CMD) activities into our capabilities. The specific recommendations of the QDR, which were designed to improve program stability and reduce risk, were provided to BMDO in the accompanying Fiscal Guidance. BMDO and our Service Executing Agents have successfully implemented the Department's direction. Our fiscal year 1999 budget reflects these adjusted priorities for the missile defense program. In order to successfully manage and execute these important priorities—and to successfully field missile defenses for the warfighter—I have directed my organization and our Service Executing Agents to evaluate and strengthen our management tools and processes. I will close out my statement with a review of the management improvements I have directed at BMDO.

Before I begin with the programmatic details, I would like to outline for the Committee the highly active year we anticipate in the world of missile defense. It will feature some highly visible flight tests and program decisions that will demonstrate the results of our past efforts and investments. Frankly, I would characterize this year as one of "challenging opportunities." I say this because almost everything we are attempting is a substantial challenge as we are not responsible for a single weapons system or even a class of weapons—but rather an entire joint mission area.

One of our successes in this area is the shared responsibility of BMDO and the Joint Theater Air and Missile Defense Organization (JTAMDO) to provide the Joint Force Commanders with an improved capability to defend against air and missile threats. The JTAMDO is defining the required system interoperabilities and operational architectures and validating mission capabilities in coordination with the war-fighting CINC's and the military Services. BMDO assumes the role of System Integration Architect for theater air, cruise, and ballistic missile defenses working with JTAMDO and the Services translating the operational architecture into a systems architecture and carrying out systems engineering, integrated testing and program acquisition functions.

Another example of our joint view of missile defense is in the area of Attack Operations. As a result of SCUD missile attacks during the 1991 Gulf War, the Department decided that the preferred method of negating attack by threat missiles is to prevent launch by conducting attack operations. Such attack operations ultimately will help reduce our missile defense inventory requirements. BMDO and the Joint Staff have formed a collaborative team, which includes the Services and defense agencies, called the Joint Attack Operations Working Group (JAOWG) to improve our joint warfighting capability to conduct attack operations.

Equally important is the need to conduct and evaluate realistic joint training, field experiments, and demonstrations. These activities are low cost, high payoff opportunities to improve our joint attack capability.

While we consider our relationship with the Joint Staff, the CINC's, and the Services to be a success, the development and acquisition of systems in a joint manner remains a challenge. And when we add to that the technical challenges of missile defense, one immediately realizes how difficult a task this really is.

This year we will conduct a series of important flight tests for our TAMD and the NMD programs. We will continue several important technology development efforts

as well. The NMD program began 1998 with a highly successful flight test of the exoatmospheric kill vehicle (EKV) sensor, which I will address in more detail later on. Another major element of our NMD program strategy is the award of a Lead System Integration contract. We plan to award the LSI contract this Spring. Two contractor teams, Boeing North American and the United Missile Defense Company (a joint venture between Lockheed Martin, Raytheon and TRW) are competing for this effort. The LSI contractor's main task will be to complete element development and integrate the elements into a system in time to provide the Department a viable deployment option in the year 2000.

Two systems in our TAMD program, the Patriot Advanced Capability-3 (PAC-3) and Theater High Altitude Area Defense (THAAD), will undergo a series of intercept tests at White Sands Missile Range in New Mexico. THAAD is scheduled to fly two intercept attempts and PAC-3 will conduct five. As we have seen in the past, complex flight tests like the ones we plan to conduct this year are very challenging. Sometimes, we experience slight delays because of minor technical difficulties with either range instrumentation, the target or the interceptor vehicle. Moreover, the challenge of achieving a "hit-to-kill" intercept is significant when one considers that the closing velocities of the target and interceptor are over 8,000 miles per hour, depending upon the missiles' ranges. However, we are confident that we have structured our programs to succeed on the test range and look forward to beginning this new year of challenging opportunities. I will talk about both the THAAD and PAC-3 flight tests in more detail later in my testimony. We will also make several important decisions and conduct some less-visible, albeit important, tests in our Advanced Technology program.

Fiscal Year 1999 Program and Budget.—In order to address the missile threat and fully execute the plans for missile defense, the Department has structured a sound and affordable program for fiscal year 1999. The total fiscal year 1999 budget request for the Ballistic Missile Defense Organization is \$3.605 billion. This includes \$3.179 billion for RDT&E, \$409 million for procurement, and \$17 million for military construction activities. Combining these three budget categories, Theater Air and Missile Defense programs account for \$2.121 billion or roughly 59 percent of the budget, while National Missile Defense represents \$962.7 million or 27 percent. We are requesting \$253.6 million for Advanced Technologies, which is about 7 percent of the overall budget. BMD Technical Operations accounts for \$194.7 million and is about 5 percent of the budget. Finally, two of our new program elements, Threat and Countermeasures and International Cooperative programs represent a total of \$72.8 million, or about 2 percent of the budget.

BALLISTIC MISSILE DEFENSE ORGANIZATION FUNDING

[TY dollars in millions]

Program element	Program	Fiscal year—						
		1997 actual	1998 estimate	1999 estimate	2000 estimate	2001 estimate	2002 estimate	2003 estimate
Procurement: ¹								
0208861C	THAAD System Procurement	.....	.....	.....	.....	.....	.....	131.952
0208863C	HAWK Procurement	14.989	.....	.....	.....	.....	.....	.....
0208864C	TMD—BM/C ³ Procurement	17.320	19.653	22.827	.....	.....	.....	.....
0208865C	PAC-3 Procurement	219.038	341.300	343.235	446.737	431.543	417.973	381.306
0208867C	Navy Area	9.087	15.058	43.318	125.679	155.034	226.607	215.780
Total Procurement		260.434	376.011	409.380	572.416	586.577	644.580	729.038
RDTE:								
0602173C	Support Tech—Applied Research	122.176	109.628	86.866	79.370	75.295	69.722	67.533
0603173C	Support Tech—Adv Tech Dev	248.011	299.788	166.676	165.431	163.514	170.079	171.169
0603861C	THAAD System—Dem/Val	549.579	390.785	497.752	37.000	5.400	.....	.....
0603867C	Navy Area—Dem/Val	157.028	.....	.....	.....	.....	.....	.....
0603868C	Navy Theater—Dem/Val	304.171	419.414	190.446	186.144	183.258	139.273	144.357
0603869C	MEADS—Dem/Val (PDN)	58.825	46.144	43.027	.....	.....	.....	.....
0603870C	Boost Phase Intercept—Dem/Val	22.755	15.766	.....	.....	.....	.....	.....
0603871C	NMD—Dem/Val	811.416	941.142	950.473	864.435	664.930	359.444	313.406
0603872C	Joint TMD—Dem/Val	493.429	582.000	176.846	219.480	217.220	221.349	219.982
0603873C	Family Of System E&I	.....	.....	96.915	130.289	141.315	155.948	147.810
0603874C	BMD Technical Operations	.....	.....	190.147	161.136	165.802	170.125	166.617
0603875C	International Cooperative Programs	.....	.....	50.676	37.716	37.555	.....	.....
0603876C	Threat And Countermeasures	.....	.....	22.113	17.608	23.909	23.720	22.020
0604861C	THAAD System—EMD	66.737	.....	323.942	596.310	574.513	602.713	501.974
0604865C	PAC-3—EMD	382.808	198.273	137.265	.....	.....	.....	.....
0604867C	Navy Area—EMD	143.343	278.790	245.796	231.592	160.193	50.296	36.792
0908612C	Acq Stability Reserve	.....	.....	.....	6.347	12.651	18.905	25.115

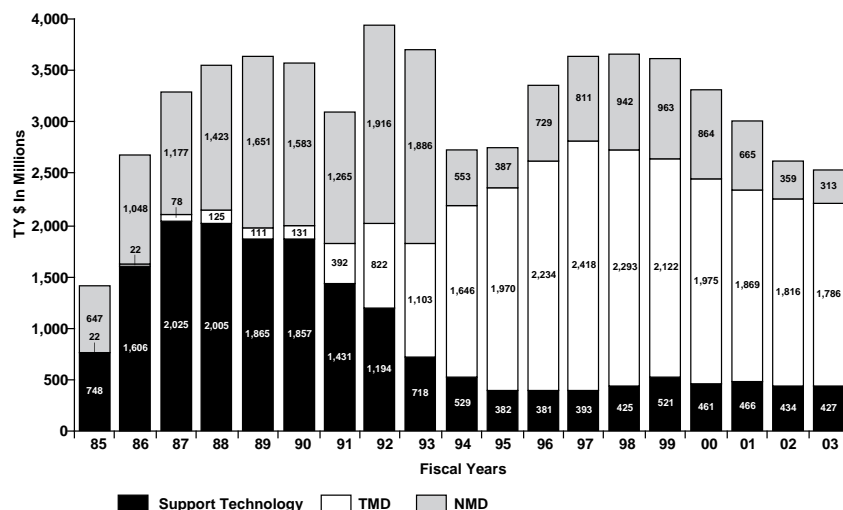
BALLISTIC MISSILE DEFENSE ORGANIZATION FUNDING—Continued
[TY dollars in millions]

Program element	Program	Fiscal year—						
		1997 actual	1998 estimate	1999 estimate	2000 estimate	2001 estimate	2002 estimate	2003 estimate
	Total RDT&E	3,360.278	3,281.730	3,178.940	2,732.858	2,425.555	1,981.574	1,816.771
MILCON:								
0603871C	National Missile Defense .....	.....	.540	12,230	.....	.....	.....	.....
0603872C	Joint Theater Missile Defense	1,404	1,965	.331	1,372	.323	1,549	1,550
0603874C	BMD Technical Operations .....	.....	.....	4,600	.....	.....	.....	.....
0604861C	THAAD System .....	.....	.....	.....	.....	.....	.....	4,689
	Total MILCON	1,404	2,505	17,161	1,372	.323	1,549	6,239
	Total BMDO Program	3,622.116	3,660.246	3,605.481	3,306.646	3,012.455	2,627.703	2,552.048

¹ Returned to the BMDO.



BMDO HISTORICAL FUNDING



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Program Element Realignment.—As you will note, our program element structure has been modified in the fiscal year 1999 budget request. My organization proposed these changes to the Department, after consulting with Members and Committee staff, in order to update the program element structure to align with the current BMDO mission focus and program management responsibilities. The catalyst for this proposal is the fundamental shift in the Department's management approach for both the NMD program and TAMD "Family of Systems," and Congressional direction on our International Cooperative program.

Last year, the Deputy Secretary of Defense delegated to BMDO the total TAMD integration and architectural-level planning responsibility. These TAMD "Family of System" costs are now captured in the "Family of Systems" Engineering and Integration (FoS E&I) program element. These are the activities and functions primarily executed by BMDO's TAMD Systems Engineer and supported by the Chief Architect. These activities include providing optimal TAMD architectural solutions via cost-performance analyses evaluating the participation of each system, working in concert with all other systems, to address the entire theater-level threat. This program element will increase the stature and visibility of these architecture-level, MDAP-like program activities and costs, and align the program management responsibility for the TAMD efforts consistent with the current BMDO organization focus.

The BMD Technical Operations program element captures those BMDO centrally-managed activities that provide functional expertise, analytic tools and support (i.e. the Joint National Test Facility), and test resources (i.e. data collection assets and test ranges) for TMD, FoS E&I, NMD and Advanced Technology efforts. These activities were previously "housed" across three separate program elements, with algorithms to determine cost-shares between TMD, NMD and Technology. By consolidating these activities into one program element, it enhances resource visibility and simplifies our management of these activities—especially from the perspective of paying internal Departmental "taxes" or allocating undistributed reductions in the authorization or appropriations processes.

The creation of the International Cooperative Programs program element is in response to both a Congressional initiative and new Secretary of Defense cooperative program policy guidance. This program element contains significant developmental programs which are jointly funded with international partners. However, it specifically excludes the MEADS program (which is housed in its own program element)

and small-scale Innovative Science and Technology programs. Hence, it provides greater insight and focus for BMD international cooperative programs.

The Joint TMD, NMD, and Advanced Technology Development program elements have been modified to reflect the transfer of the infrastructure (Technical Operations) and International activities. The Boost-phase Intercept and TMD BMC³ program elements have been eliminated, as these costs have been accounted for in the new program elements. The remaining RDT&E and Procurement program elements for MEADS and the TAMD MDAP's are unchanged.

Theater Air and Missile Defense Programs—The Family of Systems

The Family of Systems (FoS) concept is a flexible configuration of Interoperable Theater Air and Missile Defense systems capable of joint operations, which allows the joint force commander to tailor the right mix of systems and capabilities according to situation and threat. This FoS must be able to counter a wide range of threats providing a near-leak proof shield to U.S. forces, allies and friends around the world. This mission cannot be accomplished with just one or two systems, it requires multiple systems designed to counter an ever-growing and diverse missile threat during all phases of flight.

One system cannot do it all, which requires a layered defense allowing for multiple shot opportunities. The threat is so varied, and the mission demands so complex, that we do not currently have the technology to allow us to develop a single weapon system that can meet all of the demanding and complex requirements. In short, there is no single "silver bullet." Multiple systems working in unison greatly enhance the probability of destroying incoming missiles before they can effect critical assets.

For these reasons, BMDO is pursuing the acquisition and integration of land and sea-based systems that will effectively counter current and future theater missile threats. This strategy includes leveraging prior investment in ongoing Service programs, and developing new systems and capabilities for the future.



BALLISTIC MISSILE DEFENSE MASTER SCHEDULE

Acquisition Program	TY \$ In Millions				FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
	FY 98	FY 99	FYDP											
Theater Missile Defense PATRIOT (PAC-3)	539.6	480.5	2,158.1	Dev	MS III Production	Conf 3 FUE								
Navy Area	293.8	300.0	1,950.8	Dev	UOES I UOES II	MS III FUE	Production							
THAAD System	390.8	821.7	3,276.2	Dev	MS II UOES								FUE MS Production	
Navy Theater Wide	419.4	190.4	843.5	DAB Kill Vehicle Assessment	First Intercept			MS II				FUE Block 1		
MEADS	46.1	43.0	99.3		PD-V Phase Complete									
National Missile Defense (3+3)	941.7	962.7	3,164.9	CD Phase EKV Down Select Decision Point	1st Deploy Decision Point	Earliest IOC	1st Launch SBIRS							
				2 3 4 5 IST										

Acronyms:

MS - Milestone	UOES - User Operational Evaluation System	PD-V - Program Definition-Validation
CD - Concept Definition	FUE - First Unit Equipped	IFT - Integrated Flight Test
DAB - Defense Acquisition Board	IOC - Initial Operational Capability	IST - Integrated System Test



BALLISTIC MISSILE DEFENSE ADVANCED TECHNOLOGY MASTER PLAN

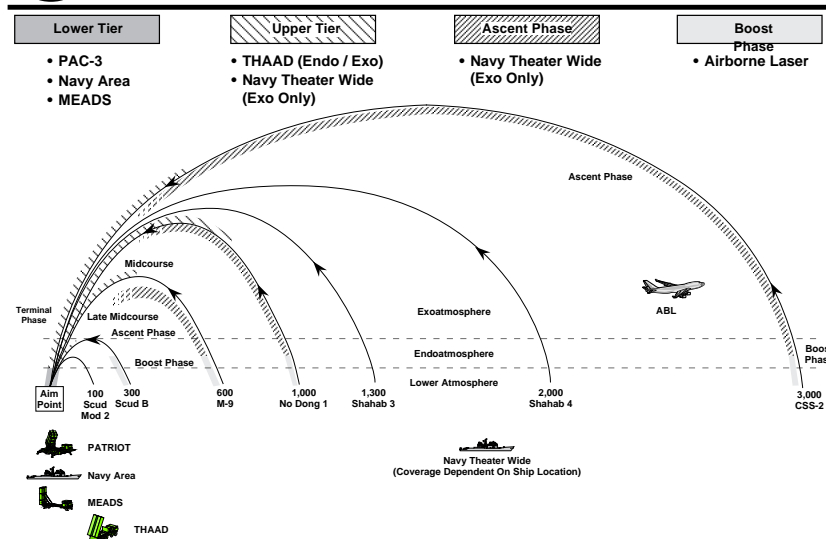
TY \$ In Millions

Program	FY 98	FY 99	FYDP	Remarks
Advanced Technology	409.4	253.5	1,215.7	
• Space Based Laser	122.1	58.8	293.4	Advanced Concept For Space Based Global Coverage Missile Defense From Space
• Advanced Interceptor Technologies	33.0	24.5	97.1	Advanced Technology Test Bed For Integrating And Testing The Next Generation Endoatmospheric Interceptor
• Discriminating Interceptor Technology Program	27.3	25.3	186.1	Exploring Tomorrow's Technology Today To Make The Next Generation Exoatmospheric Interceptor Affordable And Capable
• Phenomenology	30.9	20.2	76.5	Ensuring That The "Eyes And Ears" Of The Defensive System Are Keenly Tuned To The Evolving Missile Threat
• Innovative Science And Technology	64.5	24.0	198.8	Innovative Approaches To Exploit Latest Technical Discoveries For Improved Performance At Lower Cost
• Small Business Innovative Research	49.1	61.5	287.7	Harnessing Small Business Innovation For Advanced Missile Defenses

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THEATER MISSILE DEFENSE



mj-76811 / 031098

Let me summarize the status of these programs:

PAC-3.—The Patriot PAC-3 is the most mature of all our TAMD systems—it is currently in the Engineering and Manufacturing Development (EMD) phase of the acquisition process. PAC-3 is being fielded in the course of three phased upgrades

called “configurations.” Currently, we have fielded the first two configurations of PAC-3, providing the Army with improved operational performance. The third configuration will provide the final element in the form of the hit-to-kill interceptor missile, along with additional communications, radar, and ground support system improvements. I expect the program to conduct the first intercept flight this year, to be followed by a decision to begin Low Rate Initial Production (LRIP) of the new missile. The first deliveries of the ground system hardware and software have already begun, and development and operational testing will start this year. All of these efforts support a First Unit Equipped (FUE) date of late fiscal year 1999.

The fiscal year 1999 budget request for PAC-3 is \$137 million for RDT&E and \$343 million for Procurement. The funding request supports the deployment of the Configuration 3 system starting in 2000.

As the Committee is aware, we had planned to fly an intercept test for the PAC-3 missile in February but the test date has slipped. The reason for this delay is that the Patriot Program Manager assessed that the missile development effort and integration of the hardware and software into our hardware-in-the-loop testing facility would take longer than planned. As a result, we now plan for the test to take place in the fourth quarter of fiscal year 1998. The hardware-in-the-loop and acceptance testing are important pre-flight qualifications to ensure that all system hardware and software meet our standards and are ready to fly. Operational testing is currently planned to begin in fiscal year 1999.

Navy Area.—Following last year’s successful intercept flight test, the Navy Area program was approved for entry into EMD on February 22, 1997. The program will commence Development Test (DT) flight testing in fiscal year 1999, followed by an at-sea demonstration of the User Operational Evaluation System (UOES) in fiscal year 2000. LRIP will begin in fiscal year 2000, with an FUE date of fiscal year 2002. The BMDO fiscal year 1999 budget request for the Navy Area program is \$245 million for RDT&E and \$44 million in Procurement funds. As part of our “shared approach” for this program, the Navy has requested in their Procurement budget \$111 million.

Theater High Altitude Area Defense (THAAD).—The THAAD program is currently in the Program Definition and Risk Reduction (PD&RR) phase of development and is the most mature of our upper-tier TAMD systems. In 1997, as a result of our failure to achieve an intercept in flight tests and the need to reduce technical and programmatic risk, the QDR endorsed a plan to restructure the program and to achieve a FUE in 2006.

After flight test seven, BMDO and the Army commissioned an Independent Review Team (IRT) to review the program’s processes and the design of the THAAD missile. I believe the IRT has had a direct, positive impact on the way the THAAD program conducts its business. As a result, we have increased the rigor in our ground testing program as we prepare for the next flight test. That is where we detected the most recent technical problems. Therefore, I applaud the THAAD team for discovering these faulty components during their many ground-tests and quality assurance checks—well before we tried to fly the interceptor. The next flight test is scheduled for later this Spring.

The Department’s fiscal year 1999 budget request for \$822 million fully supports deployment of the THAAD system in 2006. This level of funding is required for completion of the PD&RR flight test program, continuing risk reduction for EMD, and for acquiring missiles for a UOES capability. In fact, the budget request is tied very closely to three concurrent contractual requirements. About \$414 million is for the extension and completion of the PD&RR flight test program and completion of the Pre-EMD risk mitigation effort. This risk reduction effort is principally focused on the design of the EMD radar and battle management software, both of which are on the critical path to achieving the FUE in fiscal year 2006. Another \$302.9 million will be used to initiate EMD and its associated start-up costs, such as materiel orders, Government Furnished Equipment procurement and “turning on” five major subcontractors. A substantial portion of the EMD start-up costs are associated with the THAAD radar development and not the interceptor missile. Finally, about \$105 million will be used to execute the UOES missile buy for 40 missiles. This will provide the warfighter with an interim capability in fiscal year 2001 until the objective system is fielded. The THAAD program is currently on schedule to fly its next intercept attempt in May. A successful intercept will allow exercise of the UOES contract option.

Navy Theater Wide (NTW).—The Navy Theater Wide program is currently in the Program Definition and Risk Reduction phase of development and is preparing for an initial Defense Acquisition Board (DAB) Review. This review is equivalent to a Milestone I review. The Navy has proposed an evolutionary acquisition approach consisting of an initial Block I system followed by a more-capable Block II system.

The Milestone I-level DAB will be asked to review and approve the proposed evolutionary acquisition strategy. The fiscal year 1999 budget request for Navy Theater Wide is \$190 million.

Family of Systems Engineering and Integration (FoS E&I).—Each member of the Family of Systems contributes what is seen to a common picture of what is occurring in the battlespace, and then based on that picture, the warfighter launches the most effective and efficient response. All TAMD systems must be capable of joint or autonomous operations. For example, based on cueing from a space-based sensors and target detection and tracking by a THAAD radar, a Navy Area interceptor could be launched to counter a threat. This concept is demonstrated through a series of “systems integration tests,” such as the one we conducted last year, where we operate Army, Navy and Air Force TAMD sensors, such as the THAAD or AEGIS radars, to track and “communicate” the threat with a Patriot firing unit.

Our Family of Systems concept will provide the warfighting CINC a “plug and fight” architecture, allowing him to selectively deploy the weapon system or systems tailored to the requirements of his theater. This Family of Systems responsibility means that all the TAMD weapons systems must be completely interoperable and capable of sharing and exchanging information that provides a common view of the battlespace. Through a rigorous systems engineering process, BMDO ensures that BMC⁴I, sensors, and weapons systems retain their singular capability, yet can function as one complete defense no matter what elements it is comprised of to meet the CINC’s needs. The “plug and fight” approach enables the CINC’s to tailor their forces to the threat and theater geography.

Our budget request for Family of Systems engineering and integration is currently \$96 million in RDT&E and roughly \$20 million in Procurement funds. The responsibility for TAMD integration of ballistic missile defense, cruise missile defense, attack operations and the BMC⁴I “back bone” capability into a single integrated air picture will continue to drive the requirement for additional resources.

Airborne Laser (ABL) program.—I would like to take a moment and talk about an important TAMD system that is a part of our Family of Systems architecture, but managed and budgeted by the U.S. Air Force. The Airborne laser is the Department’s primary boost-phase intercept program for theater missile defense. BMDO and the Air Force work very closely to ensure that the ABL system is effectively integrated into our TAMD Family of Systems. When this system is developed and deployed it will provide our warfighters with a powerful TAMD capability and will strengthen our overall TAMD architecture. By providing a critical boost-phase intercept capability, before a missile can deploy a separating warhead or countermeasures, ABL will thin out the attack for ground- and sea-based TAMD systems.

Medium Extended Air Defense System (MEADS).—The MEADS program is a cooperative development program with our German and Italian allies. The program is currently in the Project Definition and Validation phase, which is scheduled to be completed in the first quarter of fiscal year 1999. The Memorandum of Understanding (MoU) negotiations for the Design and Development (D&D) phase are currently underway with our international partners. The QDR recommended continuation of the MEADS program and increased the fiscal year 1999 funding level to provide a bridge to the next RDT&E phase, D&D. In light of the QDR guidance, the importance of this international program and continuing Congressional interest in out-year funding, I raised MEADS as an issue during the Department’s POM deliberations this past Fall. Nonetheless, other defense program priorities at the time superseded addressing the issue. During the POM process this Spring, the Department will identify the resource requirements for all BMD programs and future funding of MEADS will be reviewed in this process.

Joint Theater Missile Defense.—This activity funds projects which support our TAMD programs. This includes target missiles, collection and analysis of target signatures, technical support and TMD-unique test resources. In addition, funding in this program element supports CINC-level planning and participation in wargaming exercises. This ensures that TAMD program development reflects military needs and the combined warfare capabilities of allies and friends. These efforts support all the TAMD major defense acquisition programs in a centralized manner. I believe such centralization reduces costs and enhances the integrity in our test program.

National Missile Defense (NMD) Program.—The primary mission of the NMD system is to defend the United States against a limited ballistic missile threat by a rogue nation, should such a threat emerge. In addition, the NMD system would have some capability against a small accidental or unauthorized launch of a ballistic missile from more nuclear capable states. To ensure that the Department would have the required capability to defend the Nation against an emerging threat, it has adopted an ambitious strategy known as “3 plus 3” for National Missile Defense: by 2000 the United States will be in a position to make a deployment decision if

warranted by the threat, which would result in the deployment of an initial NMD system by 2003. To meet this challenging schedule, and to mitigate risks, we have taken numerous steps to leverage previous NMD technology development. We are constantly evaluating our performance in mitigating risk to achieve the strategy and meet the program objectives. If, in 2000, the threat assessment does not warrant a decision to deploy, improvements in the NMD system component technologies will continue, while the ability to deploy a system within three years of a decision is maintained. In order to give the program the appropriate level of acquisition emphasis and oversight, NMD was designated an Acquisition Category (ACAT) 1D program and the Joint Program Office (JPO) under BMDO was formed to manage the program.

NMD "Tool Box".—The NMD system is being developed with a flexible architecture to allow for a variety of deployment options in order to respond to unknown and emerging threats and provide an evolutionary path to a more robust system. The elements of this system include battle management/command, control and communication; the Ground-Based Interceptor; and X-band and upgraded early warning radars. The architecture also uses space-based sensors such as the Defense Support Program (DSP) and Space-based Infrared System (SBIRS). Since the architecture is very flexible, we refer to the collection of potential NMD system elements as the "NMD Tool Box." Literally, as we approach the 2000 deployment decision and assess the threat to the United States, we will be in a position to determine which NMD system element "tools" we will need to address the threat. If the threat does not warrant deployment at that time, we will continue to develop and refine both the individual system element "tools" and strengthen the overall NMD architecture.

During the past year, the NMD program has conducted two very successful flight tests that demonstrated sensor performance for the two competing contractor exoatmospheric kill vehicle (EKV) designs. EKV's are a major subcomponent of the GBI—indeed it is the "front end" of the interceptor that "sees" the target and destroys it by colliding with it at an incredibly high velocity. The first successful sensor flight test took place on June 23, 1997, using an EKV sensor built by Boeing North American. The second flight test, flying a Raytheon-designed EKV, took place on January 16, 1998. The purpose of each test was to analyze the ability of an EKV sensor to identify and track objects in space, including a representative threat target and decoys to provide risk reduction for future intercept flight tests, and to conduct an integrated system test of other NMD elements and surrogate systems. Data gathered during the tests indicate that both EKV sensors performed extremely well. The EKV sensor payload includes an optical seeker, a data processing system and a telemetry unit. The seeker and data processor are literally the "eyes" and "brain" of the EKV, enabling it to intercept an attacking intercontinental ballistic missile (ICBM). Neither of these flight tests attempted an intercept.

In addition to these two important flight tests, the NMD team participated in three NMD risk reduction flight tests, in May, June and November 1997, to evaluate the BMC³ software and NMD system communications and cueing of ground-based sensors. Finally, the NMD program completed construction of the ground-based radar prototype facility at the Kwajalein Missile Range. The GBR will be used in upcoming flight tests and will play a vital role in next year's integrated system test.

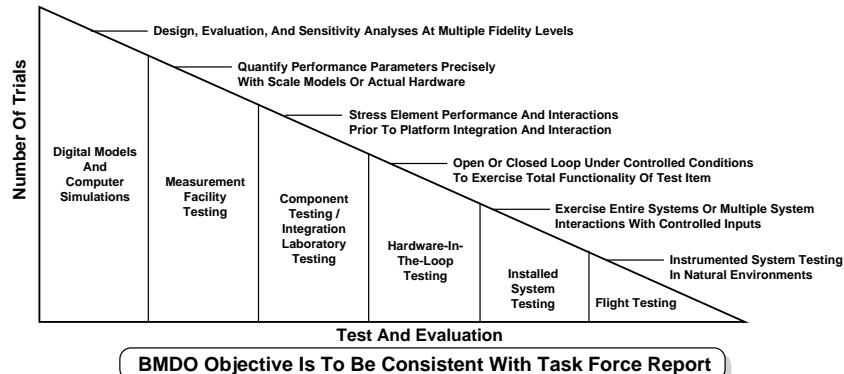
The next flight test for the NMD program will also be the first intercept test under the "3 plus 3" program. During this test, we will fly one of our competing EKV designs against an ICBM target. The interceptor and kill vehicle will be launched from the Kwajalein Atoll in the central Pacific Ocean and will attempt to intercept and destroy a "dummy" warhead deployed from a Minuteman ICBM launched out of Vandenberg AFB, California. A second intercept attempt, using the other competing EKV design, will follow and provide the data necessary to downselect to one EKV design. These represent important milestones on the path to the integrated system test in 1999 that will demonstrate overall system capabilities against threat-representative targets.

In the very near future, BMDO and the JPO will announce the award of the Lead Systems Integration (LSI) contract. Two industry teams are competing for this contract: the Boeing Company and the United Missile Defense Company, a joint venture between Lockheed Martin, Raytheon and TRW. The LSI contractor's main task will be to complete element development and integrate the elements into a system in time to provide the Department a viable deployment option in the year 2000. We have received two excellent proposals and are completing our evaluation.



BMD TEST PHILOSOPHY

- To Learn
 - Greater Reliance On Modeling And Simulation
 - Heavy Use Of HWIL And Ground Testing
 - Flight Test (Instrumentation)
- To Verify
 - Flight Test



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Ballistic Missile Defense Testing.—Flight testing represents a particular challenge for advanced programs like ballistic missile defense hit-to-kill interceptors, especially when the test events are limited in number and compressed in time. As an integrated part of any military acquisition program, test and evaluation activities will be most successful if we can conduct them according to some important principles:

- Event driven rather than schedule driven test events to have the opportunity to apply test outcomes deliberately within the systems engineering process.
- Stable funding at levels to permit adequate testing.
- A disciplined engineering approach extending throughout the system development activity, to include its test and evaluation.
- Modeling and simulation including full program life-cycle modeling and simulation. Ground testing using hardware-in-the-loop and software-in-the-loop test capabilities gives vital preflight information, especially when conducted in realistic environments.
- Flight testing at a level that allows verification of system performance and also to acquire the extensive data needed for successive phases of engineering and development—and the latter signifies substantial amounts of instrumentation.
- Finally, because success can never be assured, spare resources—targets, interceptors and range instrumentation support are needed to conduct a testing program consistent with these principles.

Despite the valuable information that flight testing produces, even in the absence of a successful intercept, we all recognize that the investment we make in a flight test, the publicity attendant to it, and the limited time and resources for accomplishing the performance verification of our interceptors, place a high premium on achieving successful flight test outcomes.

In conjunction with the OSD testing organizations, I recently initiated an independent Task Force on Reducing Risk in BMD Flight Test Programs out of shared recognition of the challenge that flight testing represents. The report of that task force highlights a number of important aspects of our overall BMD test and evaluation program.

The task force noted that there have been deviations from that philosophy in the past and our programs have been making adjustments over recent months to use our test and evaluation infrastructure more effectively. The task force found that PATRIOT's test and engineering approach was deliberate and is following a support-

able schedule with adequate resources; and the PATRIOT program manager is staying the course.

National Missile Defense has applied its additional funding, as intended, to increase the number of flight tests as well as supporting ground tests. The program manager has provided resources for both his targets program and engineering program to provide spare targets and system hardware.

The task force's insights have generated a set of recommendations that I have shared with our PEO's and PM's, and I will be evaluating with them alternatives for how we might implement the recommendations for the benefit of all of our programs. The task force's tasking was to identify and additional ways in which we could bring best technology and practices to bear effectively on our T&E programs for hit-to-kill interceptors. Its recommendations point to engineering disciplines and management practices at the PM level and at my level. There may be value in taking its recommendations as the basis for a follow-on review team to report more specifically on the technical attributes that our test managers and infrastructure managers must plan for in their future test activities.

Our existing and planned T&E and M&S facilities are complete and well-suited to meet the needs of our programs as they develop hardware from flight testing. The task force has reported persuasively that we need to keep greater discipline in using those capabilities as intended. BMDO recognizes its important role, not only in bringing best technology and practices to bear, but in helping our programs apply them in consistent ways to help solve the engineering challenges of building hit-to-kill interceptors.

Threat and Countermeasures Program.—Fiscal year 1999 marks the first time that our Threat and Countermeasures program is treated as a separate program element of our requested budget. I directed that we do this in response to recommendations by Congress that this important area of our program gain greater oversight visibility. In addition, it is a prudent step because it simplifies our internal budgeting practices and allows us to make program and budget decisions in a more coherent fashion. The fiscal year 1999 request for this program element is \$22 million, or roughly 0.6 percent of our budget.

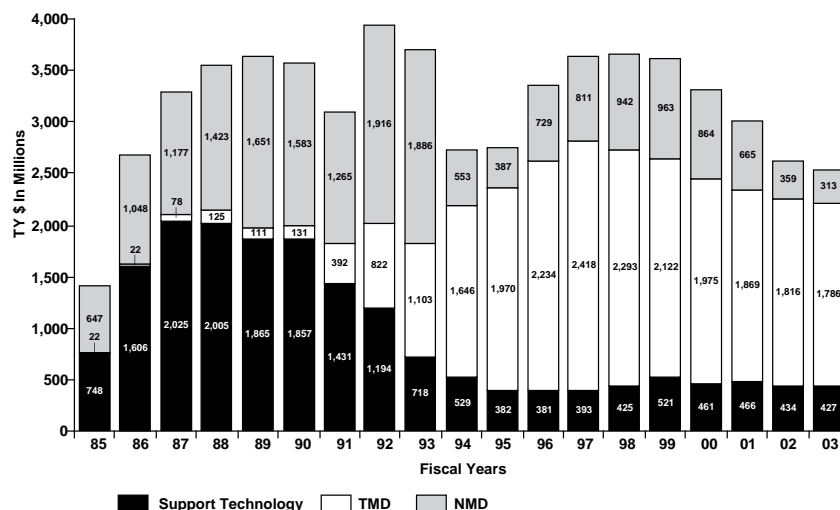
BMDO's Threat and Countermeasure program provides a wide spectrum of intelligence and threat support to all aspects of the missile defense program. The efforts covered under this program element directly support our TAMD and NMD acquisition programs by providing potential threat and countermeasure information central to the planning and execution of those programs. In addition, it supports our Advanced Technology program by providing information on future threats and the timelines associated with their emergence. Our effort draws heavily on the Intelligence Community for analysis, reports and, in some cases, collection of technical data in the field. It also sponsors threat work tied closely to the performance parameters of BMDO's defense systems, exploring possible vulnerabilities as they might be perceived by potential adversaries. This countermeasures-oriented work is conducted in a systems engineering context by means of a newly developed threat risk assessment methodology that is supported by selected hardware-oriented experiments. For example, we work with the U.S. Air Force Phillips Laboratory's Countermeasures Hands-on Project (CHOP) to assist us with such hardware-oriented efforts. Lastly, the BMDO Threat and Countermeasures program produces a series of carefully constructed and documented missile attack scenarios, including simulated flight trajectory information, for use in many forms of missile warfare engagement modeling and simulations. These include wargames conducted at the Joint National Test Facility in Colorado Springs, Colorado.

Advanced Technology Programs.—For many years the primary focus of the Nation's missile defense program was the research and development of fundamental technologies. Under the Strategic Defense Initiative (SDI) program, the focus was largely directed toward the development and demonstration of technologies useful in building a missile defense system capable of defending the United States against missile attack. Therefore, the budget dedicated to technology development was significant. The dividends from those investments are substantial, for as the program focus shifted to the development and fielding of actual defenses for the theater and Nation, we were ready to "cash in" on those technologies we had developed.

However, with the increased emphasis on fielding TAMD systems and developing an NMD system for deployment, one critical effect has been the limited resources available for continued technology development. Today, our technology budget accounts for only 7 percent of the overall BMDO budget request. Continued technology investment is absolutely necessary because it represents not only our seed corn for future missile defense systems, but it also helps us address near-term technology needs that our MDAP's may experience. The chart on the following page illustrates the declining investment in technology programs.



BMDO HISTORICAL FUNDING



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Today's technology program, therefore is a leaner one. However, reduced resources present us both a challenge and opportunity. Reduced resources drive us to the challenge of ensuring all our technology efforts are directly relevant to the mission of missile defense—to make every dollar spent on technology truly matter. With this in mind, I have instituted two major efforts that demonstrate we are rising to the challenge and seek greater cooperation with the Services in this critical area.

Joint Technology Board.—The first effort is the Joint Technology Board (JTB) which will examine areas where BMDO and the Services can better coordinate technology efforts, share resources and leverage off one another to develop an integrated technology program. The JTB includes members of my staff and representatives from the Service technology communities. The JTB advises me on the advanced technology program, ensures the Services have better insight into the BMD technology program, and provides an avenue for BMDO to work with the Services to understand both their technology requirements and investments. The JTB works within our existing BMDO “board structure.” Hence, by being fully integrated into our core processes, the JTB represents a critical management response to the challenge of leaner technology resources. Indeed, we have come to the point in time where we must think smarter and not simply rely on increased resources to meet the missile defense challenge. This initiative ties directly into the second one, the establishment of a Missile Defense Technology Master Plan.

Missile Defense Technology Master Plan.—In a few moments, I will address some of the initiatives I have instituted at BMDO to strengthen our management and execution of the program. One of those is the development of an organizational strategic plan, which includes the “mission essential task” to plan and execute a coherent missile defense advanced technology program that reduces program risk, improves system performance and affordability, and keeps pace with the threat. The Technology Master Plan is the guiding document that will help us implement this mission essential task. The plan represents a fundamental shift in the way we do business in the BMDO advanced technology program. It represents a development and maturation program consistent with the requirement of maintaining and enhancing U.S. technical superiority in missile defense technologies. The Technology Master Plan will address the issue of transitioning technology investments into the MDAP's using a more structured and routine planning process. Specifically, the process will:

- Create a greater understanding of the evolving threat and mission essential/enabling capabilities;
- Identify and define which technologies should be pursued to keep pace with the threat, reduce MDAP costs, and mitigate MDAP risk;
- Identify the timelines along which technology development should be undertaken;
- Align existing technology programs and development of new programs to meet the needs and foster innovative technologies for potential BMD applications; and
- Determine the level and timing of required financial resources.

The approach I have directed follows a path from understanding the BMD architectures to identification of missile defense drivers to meet military needs. From there we identify technology needs, along with solutions which satisfy those needs and produces an investment strategy. The Technology Master Plan is designed to have a major influence on the development and execution of the BMDO advanced technology program, as well as the BMDO budget process. Therefore, the process is closely coupled and synchronized with the overall BMDO and Office of the Secretary of Defense financial planning, programming and budgeting process—the PPBS.

The Technology Master Plan process begins each year in January with an annual review of both the evolving threat and the performance of the MDAP systems under development. Working with the user representatives, MDAP Program Managers, and others in the missile defense community, my Chief Engineer will identify needs for technology focus to counter evolving threats by existing or new systems/architectures, reduce MDAP costs and mitigate MDAP risks. These technology needs are then prioritized and approved by my System Architecture and Engineering Board. The technology needs are then used as input by my Deputy for Technical Operations, who in turn formulates and designs the advanced technology program.

To achieve these objectives, we will use an approach similar to Integrated Product Teams (IPT)—however, they will be called Technology Planning Teams (TPT). We have set up TPT's for specific technology areas, such as Interceptor and Surveillance Technology, and will soon set up a TPT for BM/C⁴I and others. Membership of the TPT's is both diverse and inclusive to provide a comprehensive, corporate approach. They will include Service representatives of the Program Executive Officers (PEO's), the MDAP program offices, the threat community, technology program managers and executing agents, BMDO, and the Defense Advanced Research Projects Agency (DARPA). The Joint Theater Air and Missile Defense Organization (JTAMDO) and organizations within OSD are also invited to participate.

Throughout the technology planning process, periodic reviews are provided by senior leadership from BMDO and the Services. The Joint Technology Board, System Architecture and Engineering Board (SAEB) and Planning and Resources Board (PRB) will review the results of the TPT's during the course of the planning year. This rigorous review cycle ensures that the Technology Master Plan addresses the challenges of emerging threats; provides a means to address technical issues as they arise in the acquisition process and executes technology programs to provide for block upgrades or pre-programmed product improvements for BMD systems. Finally, the missile defense technology investment strategy that results from the Technology Master Plan has the single, important goal of providing maximum effectiveness for each defense dollar spent. My bottom line is that the Technology Planning Process ensures a strong, effective and stable technology program which is responsive to the needs of BMDO, the Services and our Nation.

Advanced Technology Programs.—While we just started the Technology Master Planning process during this past year, we obviously have a legacy of technology developments which have laid the foundation for today's missile defense systems. The focus of our technology program has been, and will now be in a stronger sense, focused on developing those components and systems that may be required in the future. Currently, the largest efforts we have underway are two specific programs: the Space-based Laser (SBL), a high-payoff next-generation concept for a missile defense weapons, and the Atmospheric Interceptor Technology (AIT) program, a technology integration program to exploit advances in kill vehicle technology to counter more complex threats. Together, these two programs represent roughly 33 percent of the advanced technology program budget in fiscal year 1999.

Space-based Laser.—The SBL program is a high-payoff, next generation concept for a missile defense system. The SBL system, if developed and deployed, could provide highly effective boost-phase intercept of both longer-range theater-class and strategic ballistic missiles. Working with ground-based defenses, the SBL's boost-phase intercepts would "thin out" missile attacks and reduce the burden on ground- or sea-based mid-course or terminal phase defenses.

Last year BMDO and the Air Force signed a Memorandum of Understanding, designating the Air Force as the new executing agent for the program. While the SBL remains an important BMDO technology program and will continue to be funded in the BMDO budget, the Air Force will be responsible for executing the program. As the Director of BMDO, and the Acquisition Executive for BMD programs, I will retain the role of program oversight and will be responsible for centrally planning and budgeting for SBL. In addition, I will be responsible for making overall system architecture trades for SBL as we integrate it both as a technology development program and as a potential weapon system in the future.

In response to Congressional interest in accelerating the development of the SBL technologies through a readiness demonstration program, both BMDO and the Air Force sought to increase program resources through the Department's POM process. Other Defense program funding needs superseded this BMD funding issue. Together, BMDO and the Air Force internally realigned approximately \$65 million for SBL in fiscal year 1999, with a combined budget request of about \$94 million. BMDO added approximately \$30 million to its previously planned budget and the Air Force added \$35 million. Funding at this level allows the program to progress at the level of maturing SBL technology and components, but precludes the integration of those components and launching an SBL readiness demonstrator in the foreseeable future. BMDO and the Air Force are currently reviewing the feasibility of alternatives to such a launch by the year 2005. The Air Force recently concluded that a more realistic approach may be to plan a space-based experiment for 2008. The Air Force has awarded two Concept Definition Study contracts with industry hardware teams to examine all the development options and lay out schedules which bracket a number of potential launch dates for a space-based experiment. Once these studies are reviewed, the Air Force and BMDO will make a concept decision. This approach allows us to reduce development risk and test a configuration that would be more readily scaleable to an operational system.

In parallel to the Air Force concept definition studies, BMDO is working to identify a suitable location for a facility to develop, integrate and test the SBL system. The current test facility in San Juan Capistrano, California has been deemed inadequate to fully integrate and ground-test a readiness demonstrator and prepare it for space-launch. Site selection is expected to be completed by late Fall 1998. Four potential sites have been visited by a site selection team. They are Cape Canaveral Air Force Station and Kennedy Space Center, Florida; Stennis Space Center, Mississippi; and the Redstone Arsenal in Huntsville, Alabama. I will keep the Committee fully informed as this process proceeds.

Atmospheric Interceptor Technology.—The other major technology endeavor is AIT. It is a technology integration effort which will exploit advances in hypervelocity hit-to-kill vehicle technology to counter more complex and evolving threats. I do not view the AIT program as the development of a new system per se, but rather a technology testbed. In this approach, we use the AIT program to develop component technologies which could be applied to current acquisition programs as part of a pre-programmed product improvement program. The AIT program is designed to provide: new capabilities with reduced costs and risks compared to current interceptor weapons systems, and enhancements to other interceptors under development; reduction of technical risks and costs in support of current acquisition programs through direct technology insertions; and technical solutions to provide theater missile defense interceptor capabilities for contingencies and against advanced threats not currently addressed by the TMD system programs.

I have specifically directed that AIT be planned and conducted with BMDO, Navy, Army and Air Force cooperation to make maximum use of existing Service infrastructures and to ensure that AIT is responsive to the needs of our current TMD acquisition programs. As part of this process, the Army and Navy in particular have provided information about their requirements in order to ensure AIT meets the needs of its primary end users.

BMD Management Initiatives.—During the past year, my staff and I have embarked on a critical process of developing and strengthening our management tools. Specifically, we have begun our strategic planning process, refined and strengthened our corporate board processes, commenced a second round of our internal management reviews, initiated cost control and Cost as an Independent Variable (CAIV) measures and begun work on our performance-based contract. These measures will help us focus our efforts, ensure our resources are appropriately allocated to developing and fielding missile defense systems, and organize our efforts toward achieving those important results.

Strategic Planning.—As I mentioned at the beginning of my testimony, BMDO does not manage a particular weapon system, nor even a class of weapons. We manage the development and acquisition of an entire mission area—one which cuts

across all the Services. No one else in the Department does this to the scale that BMDO does. Therefore, in line with our chartered responsibilities, BMDO's vision is to be the Department's premier joint mission area acquisition agency, ensuring the deployment of interoperable missile defenses to the warfighter. Our strategic plan is our roadmap to achieve new levels of missile defense effectiveness, interoperability, and affordability for the 21st century. Our plan embodies the relevant elements in Joint Vision 2010, the Office of the Secretary of Defense planning and acquisition guidance, the Quadrennial Defense Review, and the National Defense Panel. The Strategic Plan focuses our efforts toward the successful development, deployment, and follow-on initiatives for both NMD and TAMD.

Within the Department of Defense, BMDO is responsible for managing, directing, and executing the acquisition of joint missile defense systems. This is our mission and reason why a centrally-organized BMD agency exists. In order to achieve this mission, we have identified a series of mission essential tasks, with each task incorporating key performance goals that deliver greater service, foster partnerships, and drive our own internal reinvention. To this end, BMDO strives to develop the systems which will defend our Nation, our deployed forces, friends and allies. In so doing, we seek to become the premier agency for achieving the National Performance Review Reinvention Impact Center's acquisition goals by the year 2000. The Mission Essential Tasks that we are dedicated to executing are:

- Serve as the Nation's source of technical expertise for all matters relating to ballistic missile defense;
- Establish and implement joint systems engineering processes that provide the technical foundation for BMD planning and execution;
- Develop and enable the deployment of a cost effective, affordable, and interoperable Theater Air and Missile Defense (TAMD) to meet the missile threat to deployed U.S. forces, friends, and allies;
- Develop options to deploy a National Missile Defense (NMD) for the United States, should a deployment decision be required;
- Plan and execute a coherent missile defense advanced technology program to reduce program risk, improve systems performance and affordability, and keep pace with the threat;
- Lead the international dialogue and cooperation for missile defense activities;
- Articulate and advocate the joint mission area of missile defense;
- Support our people by developing and implementing human resource strategies that enable and enhance the achievement of our vision and mission; and
- Plan and execute a program budgeting system process and other key business processes that enable and support the accomplishment of our mission essential tasks.

These tasks are goals upon which our performance will be measured. They also simultaneously serve as a planning tool and our basis for benchmarking. Each one of these mission essential tasks include a full implementation plan, with measurable activities and outcomes. My intention in embarking on this process is to: first, to comply with the Department's Defense Reform Initiatives; and, just as importantly, add rigor into every one of our efforts to ensure that we are appropriately focused toward achieving results.

Even before we began our strategic planning process in earnest, my senior staff and I redesigned our corporate board processes. The two most central are our Systems Architecture and Engineering Board—which reviews critical systems-level and architecture-level issues and makes fundamental system or architectural decisions—and our Planning and Resources Board—BMDO's senior executive corporate body—which reviews and directs all missile defense plans, programs, budget actions and policies. During the past year, we have made major strides in streamlining these processes, ensuring the inclusion of Service program stakeholders, and focusing our efforts toward more timely decisions. In addition, my Deputy, Rear Admiral Richard West, has been spearheading our Management Review Team effort to review our organization, staffing and use of support service contractors. The purpose is to assess how we are organized and staffed to perform our mission—with the purpose of butressing those areas that need additional focus and resources while reducing those areas that no longer require the support they traditionally have enjoyed. I expect that this process will conclude later this Summer, with organizational adjustments occurring in the new fiscal year.

Cost as an Independent Variable (CAIV).—In order to control missile defense program cost growth, I am in the process of instituting very specific processes and procedures for all our acquisition programs to follow. Cost as an Independent Variable (CAIV) features aggressive, realistic cost goals that the Program Manager and the contractor team work together to meet or exceed. Given the costs of developing and

fielding missile defense systems, and the overall constrained Defense budget, we must effectively utilize these tools to contain or reduce program life-cycle costs.

While the NMD Program CAIV process is under the purview of a single program manager who is managing a single acquisition program, the CAIV process for theater missile defense programs is complex because we are involved in a joint mission area, as opposed to a single acquisition program. While an individual TAMD system Program Manager has the primary responsibility to formulate CAIV metrics tailored to his specific program and will use those metrics to manage progress toward cost objectives, BMDO must be concerned with the overall architectural impacts. For example, the design of an interceptor in one TMD system may impact the design or performance of a fire control sensor and the battle management/command, control and communications. Therefore, these "cross system" interfaces must be carefully coordinated to achieve the full system requirements. Hence, BMDO has the responsibility for overseeing the implementation of TAMD CAIV, whereas the individual Program Manager bears the primary responsibility for the development and management of TAMD CAIV objectives for his program. Implementation of this important process involves the necessary procedures to state requirements in terms of needed military capability at the architecture level without offering specific system designs. Architecture cost objectives may be established through analysis of architecture-level development and performance issues which drive element costs. Therefore, CAIV at the TAMD architecture-level will allow the process to "trade-off" requirements, design parameters, and features versus cost of individual elements, while producing a missile defense system that fully provides the needed military capability. I consider our cost control measures to be an extremely important element of our overarching effort to develop and field highly effective and affordable missile defense systems.

Performance-based Contract.—Finally, we are beginning to develop our performance-based contract. As the Committee is aware, the Deputy Secretary of Defense will chair the Department's Defense Management Council. All defense agencies and OSD staff offices will be required by the end of the fiscal year to prepare, negotiate and sign a performance contract with the Defense Management Council. This contract will be directly linked to the BMDO strategic plan. If the strategic plan is our roadmap, then the contract will be the guideposts that measure our progress.

I view these management initiatives as absolutely critical efforts that will ensure we remain focused on our goals and deliver for the public, the Congress and our warfighters the very best systems and technologies we can in an affordable manner. My staff and I are committed to accomplishing these important mission essential tasks—in spirit, in results, and in the stewardship of our vital defense resources.

Closing.—Mr. Chairman, in closing I appreciate the opportunity to appear before the Committee and share my perspective on the BMD program and budget. This is indeed an ambitious year in the world of missile defense. We will attempt more flight tests and intercept tests this year than any previous year. As we have already seen, some of those tests have experienced delays. However, I encourage the Committee to not equate delay with failure. These are very complex weapons systems. They operate at extreme conditions of speed, atmospheric pressures, and short times of flight. The closing velocities of the target and the interceptor are absolutely incredible. And we are attempting to create a TAMD "family of systems" that are interoperable with other Service systems. Indeed, we are attempting things that are not frequently accomplished elsewhere in the Department. While I will admit that I do not want to see any further delays in the PAC-3, Navy Area, THAAD or Navy Theater Wide programs, I am encouraged that these most recent test delays are the result of strong quality control checks and procedures. Frankly, I would rather see a flight test delayed because an astute engineer or technician questions the reliability of a component during a pre-flight review, than see a flight take place and fail because of faulty quality control processes. The importance and expense of these flight tests are too high to risk failure in the name of haste. We must obviously balance the need to demonstrate and field these systems as quickly as possible with the responsibility to ensure they are fully effective. I am confident that both PAC-3 and THAAD will experience a successful series of flight tests beginning in the very near future.

Mr. Chairman, I am delighted to report that the NMD program is progressing on schedule. Brigadier General Cosumano and his team are literally working six and seven days per week to conduct the planned test program and to execute all the critical acquisition process requirements for this program. I think they should be commended for their drive and perseverance to ensure the Nation is in a position to make a deployment decision in 2000, if required by the threat. In spite of the fact that the NMD program has an extremely aggressive schedule and is technically challenging, I am confident that once the third critical element of the NMD strat-

egy—the LSI contractor—is in place, General Cosumano and his team will continue to make unprecedented progress in the 3 plus 3 program.

Mr. Chairman, I encourage the Committee to support our efforts to bring strength and coherence to our advanced technology program. Our Technology Master Plan represents a critical roadmap to the future for this portion of the missile defense program. While we started the technology planning process out of sequence, we recognized its importance and have been working the monumental task of a yearlong process in roughly six months. Again, the dedication of the BMDO and Service Executing Agent staffs has been remarkable. The level of teamwork and jointness across BMDO and the Services in this critical area has been tremendous. I ask that the Committee have patience as we continue to build the correct technology roadmap and identify critical technology needs. Ultimately, I ask that the Congress help us instill both coherence and relevance into the investment plan for our missile defense future. With the Technology Planning Process we are trying to rigorously assess where we must invest. I feel this is an issue that requires strong leadership on the part of both the Administration and Congress—to ensure we provide adequate funds for our future. If we fail to invest today in a coherent and relevant manner, those component technologies and follow-on systems will not be there when we need them five, ten or fifteen years hence. We must maintain our technological superiority in the face of evolving and emerging threats across the spectrum—especially as weapons of mass destruction and missile technologies proliferate.

Finally, Mr. Chairman, after another year as Director, I must tell you how impressed I am with the combined Government-industry team that is working to develop and field highly effective missile defenses. This is true in every part of our program: TAMD, NMD, Technology and our Management team. Missile Defense is a very challenging field. In many ways, this team is charting new ground for the Department. This is frequently overlooked. BMDO is not responsible for a single weapon system or even a class of weapons. We are responsible for a new concept: joint mission area acquisition. As we have all seen, this requires incredible levels of support from the Services and the OSD staff to embrace the notion of jointness. In many ways, this requires a cultural change for the Services and Department—to look beyond a single Service solution—because in future conflicts our military will be called upon to fight jointly. Therefore, as we must develop and acquire our missile defense systems in the same joint manner. While our critics may focus on the differing interests of one Service over another, the most important message I want to convey to the Committee is that today, we are working together better than ever before to build into all our missile defense systems the capability to communicate and fight together. That is our mission and I am confident that we will succeed.

Thank you Mr. Chairman, I look forward to working closely with you and the Members of the Committee on this important program. Mr. Chairman, that concludes my statement. I look forward to answering the Committee's questions.

OUT-YEAR FUNDING

Senator STEVENS. Thank you, General. We will run the clock up here on a 10-minute basis. I do want you to know that we have great confidence in you and your leadership, and there is some political problems developing, and you have been very capable in keeping yourself out of those political problems. But we have a very difficult problem facing BMDO, and that is the out-year due bills. You do not have any funds now identified for the 1999–2003 Defense budget to deploy a national missile defense system or to develop and buy MEADS.

Those are both multibillion dollar bills. Congress has urged BMDO to accelerate the Navy theater wide missile defense. Senator Lott and others have urged BMDO to move forward with a demonstration of a scale model. That would cost \$2.3 billion. We have now given you responsibility for 10 missile defense programs and almost every one has cost more than was originally estimated. I really think that the real problem we face is the continued deployment that we have had of our forces in Bosnia and in the Persian Gulf is eating away at our ability to develop the systems our Nation will need, in my judgment, and need them long before we

are going to have them. I would urge that we find some way to try to settle in on a system and try to develop it. I remember so well the arguments we had here with some of your predecessors over the question of PAC-2.

And although it did not solve the whole problem, at least it was available when we needed it. And I have that feeling that we are not going to have anything available when we need unless we start singling out something and moving forward. I do congratulate you personally for your decision to be very thorough about testing, but I do think that somehow or other there is a lot of intraservice competition entering into this.

I, as I indicated before, personally am extremely disturbed over this attitude that is now coming out of the Army that the testing that is going on or proposed to be tested up my way is just an exercise in futility, and they are doing everything they can to block it. With attitudes like that really reflect intraservice rivalry. I think the whole system is going to lose support that it needs in Congress.

So I would urge you to do what you can to straighten this thing out so we do not have that kind of development. It does seem to me and you really have emphasized PAC-3, and whether it is PAC-3 or 1 of these other systems, if 1 of them shows capability of moving forward, I think we are going to have to decide to move 1 or 2 forward and not to spend all our time on 10 or more systems.

You mentioned that you believe we should have a system that would provide protection for all 50 States, and I remember when Senator Inouye and I heard the proposal that indicated that the system that would be considered would not cover our States and probably not some of the southern States. I want to ask you again, do you think we should put a requirement in law that the system to be deployed should protect all 50 States?

NMD THREAT COVERAGE

General LYLES. Mr. Chairman, I think we already have that requirement. And actually, it's been stated in two ways. It's been stated within the Congress. It's actually language within the fiscal year 1998 authorization bill. But even before that, the requirements given to me by the user, by CINC-SPACE, Commander in Chief for U.S. Space Command, was to protect all 50 States. That's an absolute for us for the National Missile Defense Program, and we are not deviating from that at all.

Senator STEVENS. Then I do not understand without modification why we are spending money on the Grand Forks deployment because by definition it does not cover 50 States.

General LYLES. Mr. Chairman, as we look at the various architectures, possibilities, one of the key things is to understand where the threat might emanate. And I'd love to come back and lay out and show you some of the classified charts. I can't do it in this particular room with the audience here.

But there are some threats from some places around the world where you could actually provide protection for all 50 States from the one site that you mentioned. That's not necessarily from all threats. They can't meet it from all threats. So we are looking at examining all the different architectural approaches, but the key

premise for us, the key mandate—it's not just a premise—is protection for all 50 States.

Senator STEVENS. Well, I think I can use the reference to C-1 threat, can I not, here?

General LYLES. Yes, sir, you can. Yes, sir.

Senator STEVENS. Well, where Senator Inouye and I live, the C-1 threat is predominant. The Grand Forks deployment will not protect against that. I do not have—I really think that the two of us are going to have to get on our high horse here pretty soon because it seems that we are at every turn that is being forgotten.

General LYLES. Sir, I can assure you that I haven't forgotten it, that the Joint Program Office and the program manager, Brig. Gen. Joe Cosumano sitting behind me, we absolutely have not forgotten that. And the term we use, Mr. Chairman, is C-1 capability, and that C-1 capability will look at all varieties of threats and depending on where the threat emanates we will make sure that if there is a decision to deploy we always deploy to protect all 50 States. And I can promise you that that is not something we're deviating from.

WELCH PANEL

Senator STEVENS. You mentioned the Welch panel. That panel based on its review said this: successful execution of the three-plus-three formulation on the plan schedule is highly unlikely. You again this morning mentioned three-plus-three. Can you realistically develop and deploy that national missile defense system by 2003?

General LYLES. Mr. Chairman, that is exactly what we're trying to do. As I've stated to the committee and other committees last year and throughout the past year, it is a very high risk schedule. The program was laid out as sort of a hedge strategy because of the concerns about a possible emerging threat.

And so we are trying to do this in a very aggressive manner. I don't disagree, and actually I support everything that came out of General Welch's study. Again, we were one of the people who commissioned that study, and what we have to do is sort of make a balance between good, robust proper hierarchical testing and also the need to ensure we get a capability as rapidly as possible. So we are desperately trying to make that a reality.

NMD DEPLOYMENT

Senator STEVENS. But I think Welch's panel looked at the probability of funding at the current level of the budget. Would you give us your best estimate of the cost and schedule for deploying the initial national missile defense capability for the record?

General LYLES. For the record—I'd like to provide it for the record if I could, Mr. Chairman. And one of my reasons for hesitating in discussing it openly is that the cost, the real costs, are going to be part of this down select source election decision we're going to make in the next couple weeks from this prime contractor. And to give you real good numbers, I'd like to provide that for the record and tell you exactly what—

Senator STEVENS. I am not trying to compromise your judgment on that. What I am trying to see is whether it is really possible

with the budget we have. I really do not see the budget capability to add the money that is necessary to meet the existing bills, as I said.

General LYLES. Oh.

Senator STEVENS. The out-year bills that are due under the system already seem to eat up the money, and we do not see a capability of funding that in the three-plus-three concept under this budget as it stands now.

General LYLES. I'm sorry, Mr. Chairman. I gave you the wrong answer. You were correct. We do not, and the administration's position has been there are not deployment dollars currently in our budget for it to be three-plus-three.

[The information follows:]

NATIONAL MISSILE DEFENSE [NMD]

Current RDT&E funding for NMD development is sufficient to complete the system design for an initial operational system by fiscal year 2003, if a decision to deploy is made in fiscal year 2000. However, each year beyond fiscal year 2000 that a deployment decision might be deferred would require additional RDT&E dollars which are currently not budgeted. Once the decision to deploy is made, an additional \$4 billion to \$6 billion in procurement, MILCON, and Operations and Maintenance funding, beginning in the year of the deployment decision, is necessary to field an initial system. Specific funding is dependent on threat, selected architecture, and siting considerations.

THAAD DEVELOPMENT

Senator STEVENS. Let me shift to another one. If the THAAD flight test is successful, will that be sufficient in your judgment to give THAAD a clean bill of health and let it proceed?

General LYLES. No, sir; I will never say that one flight test at this stage of a program is sufficient to give a system like that, a complex system like that, a clean bill of health. As you know, we're still in the demonstration and validation phase of the THAAD Program, and that phase is really to wring out the design.

We have a lot more testing, a lot more development to go before I could sit in front of you, Mr. Chairman, or the committee, or the Secretary of Defense and say that we have a clean bill of health, the program is ready to proceed to deployment. It's a major step, but I would not use that statement.

Senator STEVENS. We may have to have a subsequent meeting, General, in our classified area to discuss this further.

General LYLES. I would love to, Mr. Chairman.

Senator STEVENS. I think we should try to see if we cannot get more members here at that time. Senator Bumpers.

Senator BUMPERS. Thank you, Mr. Chairman. General Lyles, on the question Senator Stevens was just asking about, are we going to go ahead with buying THAAD missiles after one successful test, and you said something to the effect that no we're not. But I am not sure what the qualifier was because the Department of Defense said on March 24, once we have one success, we are going to order 40 interceptors. Now, how does that square with what you just said?

General LYLES. Senator Bumpers, as I stated in my opening statement, and that one chart that I showed in your package, we actually have a series of hierarchy of different tests that we're doing for the THAAD Program. The plan is after the first intercept,

this is what we have put on contract, that we would make a decision to procure those 40 user operational evaluation missiles, UOES missiles, and that is a correct statement.

But if you look at that one chart, you will see that there are a series of other tests, some of which have been going on for some time, ground tests, hardware-in-the-loop tests, software testing, et cetera, that are also giving us confidence in that design.

But more importantly, the thing I've tried to ensure is that before we commit our precious dollars to totally commit all the money for this particular program that we've laid out a hierarchy of reviews. The chart shows that there are at least two if not three in progress reviews that we will conduct before we fully obligate the money this year for the UOES Program. And if we stay on schedule, there will actually be two more flight tests that will be completed before we fully obligate the money for that particular effort.

So our contractual requirement is to turn it on, turn on that option with the contractor, but I want to make sure from a fiscally smart manner that before we fully obligate the effort we know exactly everything about THAAD, hence the other activities that are taking place.

BMD TEST PHILOSOPHY

Senator BUMPERS. Well, General, I may during the appropriations process or the authorization process offer some kind of an amendment to be sure that we do not obligate ourselves to a few billion dollars on one possible random hit. And this chart right here, BMD test philosophy, down at the bottom it says, BMDO's objective is to be consistent with the task force report. Now, I have not read the report in detail, but I have had my staff do the highlights for me, and I thought it was an excellent report that General Welch and his group put together.

General LYLES. Yes, sir.

Senator BUMPERS. Apparently you do, too.

General LYLES. Oh, yes, sir.

Senator BUMPERS. And they called what is going on now in BMDO, they called it a rush to failure. Now, that is a fairly current report. What have we changed? What have we changed to make sure that we honor the task force observation that we are headed for a rush to failure? I mean, what are we doing? You know how strongly I support the Three-Plus-Three NMD Program. But it is insane to me to set deadlines for doing these things regardless of what the tests or the technology may be. What are we doing to make sure we are not rushing to failure?

General LYLES. Senator, let me answer that—

Senator BUMPERS. I am still not satisfied that that is not precisely what we are doing.

General LYLES. Yes, sir; Senator, let me tell you exactly what I have done in response to that report. Again, one of the reasons I was one of the commissioners of that study is to ensure I specifically and all of our program managers knew and understood how we were doing from an independent look at our test program. Since that report came out, I have specifically tasked the program managers for each one of our programs and their program executive officers, PEO's as we call it, to go back and in light of that report,

in light of the lessons learned from the THAAD Program over the last year to come back and tell me what things we may have to consider doing in each one of our programs to ensure that we stay consistent with that test philosophy and the concerns raised by General Welch.

They owe me that response and answer within the next 30 days or so, and I would, again, be very happy to report back to Congress as to what our assessment is of that. In the National Missile Defense Program at a recent hearing, I have committed to Senator Levin that I will bring back that Welch panel to have them to review our test program for national missile defense once we have down selected to our prime contractor, our lead systems integrator. And we have essentially gone on contract for the test approach being recommended by that specific contractor.

PATRIOT EFFECTIVENESS

We will bring back that panel to relook at that to ensure we are staying consistent with that test philosophy. We are very serious about that, and we don't want to take it lightly.

Senator BUMPERS. General Lyles, let me ask you two quick questions. No. 1, on Patriot, we found out after Desert Storm that Patriot had not been nearly as successful as we thought watching CNN and watching the Patriot explode instead of intercept. Now, it is now estimated that so far as the real threat to our forces is concerned it is mostly from Scud-type missiles with ranges of less than 500 kilometers. And my question is, it seems to me that if the Patriot is what it ought to be or what we have been led to believe that it is and which you alluded to in your comments, that gives us a little breathing room. If 97 percent of the threat is from short range missiles, it seems to me that that gives us a little breathing room so we do not have to go balls out to do this thing on some kind of a time schedule that we cannot possibly meet.

General LYLES. Senator, the Patriot—

Senator BUMPERS. What I really want you to tell me is what is the confidence level in the Patriot as against the Scud for example?

General LYLES. The confidence level is very high of the current Patriots we have fielded today with the first two phases of the Patriot Program, Patriot Advanced Capability Three Program, the guidance enhanced missile that's fielded today. The confidence is very high, and I can tell you a specific reason. Because about this time last year in February or March specifically in 1997, we actually tested the current generation of Patriots against the current generation of Scuds.

I can't obviously talk in this environment about how we acquired those, but we did do testing in the Kwajalein Pacific missile range. We conducted two tests. Both were intercept tests. Both were very, very successful. Both cases, we intercepted and killed the Scud. Now, we did learn something. We learned something about the aim point selection on one of those tests, and we've now made some software modifications to actually improve even what we have in the field.

And those software modifications are now in the field today. So I am very confident, Senator Bumpers, based on those tests, based on the current threat, based on what we have in the field today

that we can counter today's threat. The key is about tomorrow's threat and weapons of mass destruction. That's our concern.

PROTECTION OF 50 STATES

Senator BUMPERS. Well, my final question is also a follow up to what Senator Stevens was asking and I share his concern about his home State, as well as Hawaii. I do share their concern about their home States just as any of us would have. And the ABM Treaty grants us one site. And that is Grand Forks. And it seems to me—I am a great champion of the ABM Treaty. I do not want a brouhaha or a violation of it, and I think the Russians are comfortable right now. But do you feel comfortable with your answer to Senator Stevens on the 50 State philosophy from Grand Forks? I mean, I think there is a real question as to whether you can do it from Grand Forks or not, but I would be interested in hearing your answer to that.

General LYLES. Senator Bumpers, I think the correct answer—and I probably should have expanded upon this earlier as stated literally 2 years ago when we embarked on this three-plus-three strategy by Dr. Perry when he was the Secretary of Defense—is we will develop this capability in a treaty compliant manner, but when it comes to actually to deploying a capability we will deploy and if necessary readdress the ABM Treaty. We will deploy to make sure we can protect our Nation, protect all 50 States from the threat.

As I stated to Senator Stevens, from Grand Forks, if you look at it architecturally, there are at least some threats by which you can protect all 50 States from that particular site, but not all threats. And the key issue is what do we think about the threat and where the threat may emanate that will determine where and when we deploy.

ABM TREATY COMPLIANCE

Senator BUMPERS. Are you familiar with the bill called the American Missile Defense Act of 1998?

General LYLES. Yes, Senator, I am.

Senator BUMPERS. So far, there are 47 cosponsors, only 2 Democrats, but it says it is the policy of the United States to deploy as soon as it is technologically possibly an effective national missile defense system capable of defending the territory of the United States against limited ballistic missile attack whether accidental, unauthorized, or deliberate. Have you read this bill? Have you looked at it?

General LYLES. Yes, sir, I have.

Senator BUMPERS. Are you comfortable with some of the language in it? For example, there is no definition of technologically possible, and it does not define territory of the United States. For example, does it include Guam?

General LYLES. I'm not sure what is meant by territory in that particular bill so I'm not clear as to whether or not that does.

Senator BUMPERS. It does not say that this defense system has to be ABM compliant. I assume though that that is a given by both the administration, you and the Department of Defense.

General LYLES. Again, Senator Bumpers, as we stated before, our program will be developed in a treaty compliant manner, ABM

Treaty compliant manner; but when it comes time to making a decision to where to and when to deploy, we will deploy to make sure we're protecting the United States. And if they have to relook at the ABM Treaty—I think that's what Dr. Perry said—we will do that.

Senator BUMPERS. Thank you very much, General Lyles. I have maybe two or three questions I might submit to you in writing.

General LYLES. Yes, sir. Sure. I would be very happy to answer those. Thank you.

Senator BUMPERS. Thank you, Mr. Chairman.

Senator STEVENS. Senator Bumpers, I am sure you realize that there is nothing in the ABM Treaty that specifies Grand Forks. It is one site in the United States.

Senator BUMPERS. I did not say that.

Senator STEVENS. Senator Domenici.

AIRBORNE LASER

Senator DOMENICI. Thank you, Mr. Chairman. General Lyles, many Americans would be astounded to know that we have no ballistic missile defense at this point. People would probably be surprised that we have no missile defense in place.

It seems to me you are in a dilemma because you have to decide whether you are going to do something in the short term that will be partially effective or wait for a longer-term solution that will be more effective. That is what I am hearing you indicate your concerns about in terms of technology availability and which program might work and to what extent.

I have a concern that as each of the branches of the military proceed to carry out their budget squeeze that you will not be involved in their budgets as it pertains to their participation in the ballistic missile defense system. I believe we could go down the one path which says full speed ahead here where in another department things are slowed down. With the Air Force being short of money, it may be going down a slower path in something that contributes to the solution. So I have two issues involved, just to point up my concerns. I understand that the Air Force has some very, very exciting technology by way of the Phillips Laboratory in Albuquerque, NM.

General LYLES. Yes, sir.

Senator DOMENICI. And tied into some of the other big laboratories which have worked on the airborne laser system. Now, let me ask are you certain that even though that program is exclusively within the U.S. Air Force, that as the Air Force has to cut its budget that somebody is speaking up when the budgets are prepared that this is a very distinct function that is bigger than the Air Force, it is part of the overall system, and that they get adequate funds for something like the airborne laser?

General LYLES. Senator Domenici, I am very confident about that for two reasons. One, the very strong commitment that we see from the Air Force leadership to ABL and not just ABL in terms of how it supports missile defense, but as you stated, that it is such revolutionary technology it stands a chance of revolutionizing air warfare for the future. And so I, literally having talked to the Chief

of Staff and the Secretary of the Air Force know that they are absolutely committed to making sure the ABL Program progresses.

The second reason is we have very good relationships with all of the Services who are involved in missile defense, and I clearly do have an opportunity to voice concerns if I see that there is some inequity or something going on where money might be in jeopardy. So I don't feel that we will be isolated. I feel very confident that we'll have an opportunity to raise any concerns.

WHITE SANDS MISSILE RANGE

Senator DOMENICI. Now, let me raise another issue that has bothered me because I am not sure whether the management and future of it is being looked at from the standpoint of your ballistic missile needs. Let us just take the largest inland test site that we have in America that America has any control over which is White Sands. Are you aware that in the current Army's budget that missile range is going to be restrained in terms of personnel and capacity because the Army does not have enough money to continue to man it in the manner it did before? Again, since that has something to do with testing the kind of weapons you are talking about, are we sure that one hand is not restraining something because of budgets while you are going to have a demand that you cannot meet your goals in 5 years because the ranges are not up to it?

General LYLES. Senator, we are, I think, fairly familiar with the problems and challenges they have budgetary wise for all their ranges, and not just the Army. I think all the services do. So I am familiar with that. One thing that we try to make sure—again, we have a very strong linkage with the range community; and from time to time in specific areas, we've actually provided additional funding to help them in various places.

Some of the manpower, and operation and maintenance things are not necessarily our responsibility; but we do get a chance to raise concern if we see that cutbacks or reductions in those areas might jeopardize our opportunities to have successful flight tests. So again, we do get a vote in the process.

Senator DOMENICI. So being a little more precise, you have certain ideas about the kinds of tests you are going to have to have over the next 5 or 6 years?

General LYLES. Yes, sir.

Senator DOMENICI. You have talked about them here. Are you sure that you will not be 3 years down the line and come up here and say, well, we do not have the testing capacity at White Sands or one of the others because we cut back at a point in time when we let somebody work on them without the impact potential of our missile defense program? Are you sure that is not going to happen?

General LYLES. Senator, my answer today to that question is yes; but since I like to be thorough and always completely honest, I'd like to, if you could, since I have been asked that specific question to go back and look at the situation as it stands and then if you like I can report back to you or the committee and tell you what I think about that. Today, my answer is yes; but I want to be thorough.

Senator DOMENICI. Mr. Chairman, can we ask him to do that and report back to you and the committee on his findings?

Senator STEVENS. Sure.
[The information follow:]

WHITE SANDS MISSILE RANGE [WSMR]

Recent cuts in the White Sands Missile Range (WSMR) budget have resulted in a reduction in the civilian work force (approximately one-seventh of the total remaining civilian work force) as well as military Operations and Maintenance (O&M) and other military field support personnel. Personnel cuts have been fairly consistent with reductions in work load. WSMR is carefully planning budget cuts to reduce overhead cost and posture themselves to be more competitive in the future. WSMR's plan is to maintain a core capability in all areas and establish contracts that can supplement the core and provide a surge capability to cover periods of increased activity.

At this point, WSMR will be able to support any planned BMDO tests. BMDO testing at WSMR will be reduced in the years ahead with THAAD moving toward the Engineering and Manufacturing Development (EMD) phase at Kwajalein, PAC-3 entering the production phase and Navy programs conducting their testing at the Pacific Missile Range Facility (PMRF).

If additional funding cuts occur in the future, we will re-assess our test infrastructure requirements.

Senator DOMENICI. Thank you very much.

General LYLES. Yes, sir. Thank you.

Senator STEVENS. Senator Inouye.

Senator INOUE. Thank you very much, Mr. Chairman. Of course, I apologize for being late. As you know, there was a very important confirmation hearing this morning. I am not certain whether these questions have been asked, General.

General LYLES. That's fine, sir.

THAAD UOES

Senator INOUE. But last year we had our seventh test of the THAAD; and once again, it missed the target. Do you agree with me that we should not begin to purchase these missiles in the absence of multiple successful tests?

General LYLES. Senator——

Senator INOUE. I ask this because I have been told that when we get the first successful one they are going to start purchasing. Is that the policy?

General LYLES. It's not exactly, Senator Inouye. The plan is to procure after one intercept or to turn on the contractor to procure what we call user operational evaluation systems missiles. They would be procured or actually bought with research and development dollars. They're primarily for test purposes. That's the original purpose of those particular missiles. But as the name of that project or that initiative implies, user operational evaluation system, we intend to allow the users, the soldiers in the field to work with those THAAD missiles, work with the other components of the THAAD system, get familiar with it, maybe even identify some problems with it. And our plan was to procure 40 of those advanced missiles, if you will.

As I stated in earlier comments and stated in my opening statement, we've tried to make sure we lay out and do that in a smart manner. Our contract says, yes, after one intercept we will turn the contractor on to procure those 40 missiles, but we've laid out a schedule so that there's lots of other testing, ground testing, software testing, hardware-in-the-loop testing to give us confidence that we know exactly how the THAAD Program is proceeding.

We have three major reviews that are planned before we fully obligate dollars to this particular initiative. And if we stick to the schedule, we will actually have two more flight tests before we will actually fully commit and obligate all of our dollars. So from a contractual standpoint, you're right, Senator, the plan is to turn on the contractor to procure those 40 missiles. But from a good stewardship of the dollars for the taxpayer and for our program, we've laid out a series of reviews and other activities before we formally and finally commit all the money to it.

Senator INOUE. So you believe that BMDO should exercise a greater oversight role considering some of the problems we have had with the Army and the contractor?

General LYLES. We do have responsibility for the oversight role today. I will not fool you or tell you that we don't have some issues sometimes where we need to have tighter controls, but I am working toward that objective with the full support of my bosses.

Senator INOUE. We have been told time and again that flight testing is very expensive so we have gone into computer testing. Do you have confidence in relying on computer testing?

General LYLES. Senator Inouye, the test philosophy I talked about in one of the charts that I left during my opening statement, there's a sort of hierarchy of testing that we'd like to do for all programs, not just missile defense programs. And it really is to wring out the design, understand what the design is, do that in a very, very robust manner starting with modeling and simulation computer testing, subsystem testing, component testing, all the things that you want to do in a smart manner to understand things so you don't try to answer all the questions in a single flight test.

MODELING AND SIMULATION

And so we are relying and actually need to do more reliance on modeling and simulation and computer testing. To answer your question specifically, that's the way we all need to do things. We need to make sure the models are very reliable and robust and accurate. There's a lot that needs to be done to make sure that's true. But I think you're going to see more and more reliance—again, not just in ballistic missile defense, but in other programs—of doing more robust modeling and simulation in computer testing and then saving flight tests to verify that your models are right. And they answer those kinds of questions.

Senator INOUE. I ask this because we have been advised that THAAD has undergone about 10,000 computer intercept tests and all of them succeeded. In the computer, you have succeeded 10,000 times. In real flight testing, not one. Something is wrong there.

General LYLES. Yes, sir, there is. And I can tell you specifically in terms of THAAD because we have wrung that system completely over the last year. It's one thing to have successful modeling and simulation computer runs to show that you can do it. There are two things that are required there, to make sure the models are accurate and that they are reflecting truth if you will. I think that's the case with THAAD. I feel very confident about THAAD.

But if you look at the four intercept failures we had, those four failures, each different, a different failure mechanism, all were pointed back to one key entity—two of them I guess you'd say. One

is reliability and good reliability and a lack of understanding about the design margins. They were not failures in the design. We think we feel very confident from all the things we've looked at in the past year, that the design is sound.

But our reliability program and what we knew about the design margins on the various components was not very—not where I'd like it to be, and that's where we have focused our efforts over the last year, to make sure we understand and qualified all the components, all the subsystem, that we understand the design margins. That's the kind of smart thing you do in developing a program, and we've had to go back to put emphasis on that in the last year.

NAVY AREA WIDE

Senator INOUE. General, I have been advised that the testing for the Navy's area wide defense will begin at the Pacific missile range sometime in the last quarter of 1998. But we have been told that facility and instrumentation upgrades would be necessary. How much do you have in your budget for this purpose?

General LYLES. We are working with the Navy to define all of that now, Senator Inouye. I'm trying to find my notes to see if I can give you an accurate answer. I think it is to the tune of a couple of million dollars, but let me provide that answer to you for the record to make sure it's completely accurate, but we are working with the Navy on that.

Senator INOUE. I would appreciate that.

[The information follows:]

PACIFIC MISSILE RANGE FACILITY [PMRF]

The fiscal year 1999 Presidents Budget includes \$34.867 million (fiscal year 1997 and fiscal year 1998 funds) for Pacific Missile Range Facility (PMRF) Upgrades. Congress added \$4.692 million in fiscal year 1997 and \$4.852 million in fiscal year 1998 to Navy research, development and test (RDT&E) funds for Optical Sensors and other PMRF upgrades. These funds were reprogrammed to BMDO RDT&E Defense-Wide in April 1998. The revised amounts total \$8.882 million in fiscal year 1997 and \$35.529 million in fiscal year 1998 funds for a total of \$44.411 million in the BMDO budget for upgrades at PMRF. Necessary upgrades will be complete in order to meet Navy Area testing requirements in fourth quarter 1998 (first quarter fiscal year 1999.) All remaining efforts are scheduled to be completed by fourth quarter fiscal year 1999 and in place for system testing in first quarter fiscal year 2000. Further upgrades are not planned at this time, and funding for such is not included in the fiscal year 1999 Budget.

ARROW THIRD BATTERY

Senator INOUE. In previous statements, you have noted that our Nation derives a lot of benefits from its participation in the Arrow Program. The Israelis have identified a need for a third battery because the two batteries will not cover that State. What is your view on the need for a third battery?

General LYLES. Senator, we participated with the Israelis, and they worked very closely with us to analyze ways that we could help them and actually help ourselves to address the potential emerging medium-range threat in the Middle East, particularly from Iran. Our analysis done with them shows that there is benefit of having a third battery. There's some additional more robust coverage, overlaps in coverage, of having a third battery. And so from that standpoint, I think as even stated by the Secretary of Defense,

we understand there is a benefit from having a third battery. The issue is how to procure that third battery.

And at least in our program within BMDO, we are not allowed from policy standpoint of buying hardware for them. We help jointly develop a capability, but our responsibility is not to buy hardware for them, and there are other means that are being addressed to figure out how to do that.

Senator INOUE. Mr. Chairman, I was very interested in the question asked by my colleague from Arkansas on the so-called Cochran-Inouye missile bill. I would just like to state that I was most honored to be called upon by the Senator from Mississippi to join him in this endeavor, and he has spent much time in drafting this.

But we all know that this science is still at its infancy, though we have been involved in it for several decades. There are changes all the time. And obviously, we would have to work out legislative intent and definitions as we move along in the legislative process. I hope that you will work with us as we progress in its consideration in the Congress.

General LYLES. Yes, sir, we will.

Senator INOUE. I thank you very much.

General LYLES. Thank you, Senator.

Senator STEVENS. Thank you. Senator Hutchison.

PAC-3

Senator HUTCHISON. Thank you, Mr. Chairman. I appreciate you calling this hearing because this is a great concern of Congress. Both the deployment opportunities for the intercontinental or the national missile system as well as the development of the theater missiles. I would like to ask you a couple of questions starting with the Patriot 3. I think that Senator Bumpers was correct. Many of us got the wake up call in Desert Storm about the lack of ability to defend our troops in the field from Scud missiles and other types of incoming missiles. The Patriot 3 by all accounts is testing well. I would like to ask you when it will be ready to be fielded for actual use?

General LYLES. Senator Hutchison, our plan is to have the PAC-3 in the inventory by the end of fiscal year 1999. That's our current schedule for PAC-3. We're on track with that. Assuming we have successful intercept tests starting with our test this summer, we think we can stick to that schedule.

Senator HUTCHISON. Well, let me ask you if there is anything that you could do or anything that we would need to do to allow you to be able to make that not longer, but shorter?

General LYLES. I don't think in terms of that particular program, the PAC-3. It has progressed very, very well, just as you said, Senator.

Senator HUTCHISON. And the testing that you are doing you feel is enough?

General LYLES. The testing so far. We haven't started the actual intercept test. That's the—our first one of those is going to be this summer. And I think we're going to be very successful with that, but we haven't started that series of tests yet. I hesitate to say

there's anything we could do to try to accelerate that program any further.

What provides us some comfort, however, is the answer I gave to Senator Bumpers that the capability we have in the field today—the Patriots in the field today can and actually have been proven—are capable of countering the current threat. Now, where we need PAC-3, of course, is particularly hit-to-kill lethality capability to counter weapons of mass destruction. So we do not have a window of vulnerability right now, but I don't think we can actually accelerate PAC-3. It has really been very successful, and I hate to try to tinker with it right now.

Senator HUTCHISON. OK. Because we know that the original Patriot was not meant to hit missiles. It was meant to hit planes.

General LYLES. Exactly.

Senator HUTCHISON. Therefore, the accuracy rate was not what we thought it would be, but that would have been a severe change in position.

General LYLES. Yes, ma'am.

NMD THREE-PLUS-THREE

Senator HUTCHISON. All right. The next question that I have is on—it is along the same line, but in a different direction from Senator Bumpers, and that is the three-plus-three.

General LYLES. Yes.

Senator HUTCHISON. I got the impression he thought that that was perhaps too long. I think it is too short. And I would like to ask you if there is any more R&D that we could be doing that would make the three-plus-three shorter in opportunity because I do not think the ABM Treaty—the ABM Treaty is being used as an excuse not to deploy, but I do not think that is going to be a valid excuse. So I think we have got to go forward full force to do what is right for our country and the ability to protect our shores. So, therefore, from that line, is there anything that we could be doing if we did not have artificial barriers like the throwing up of the ABM Treaty to make the three-plus-three shorter?

General LYLES. Senator, I don't think so. To be perfectly honest with you, as I stated many times before Congress and others, we have a very, very high risk program today in terms of schedule constraints. We are compressing our normal development cycles, but doing it rightfully so because of the concern about the threat just like you stated.

But I don't think there's any way we could try to accelerate that program any more than what we are currently doing. We have a minimal number of flight tests that are planned for the program. Three-plus-three, as you know, is envisioned that based on literally two no more than three intercept tests, total intercept tests, integrated systems tests, that we will look at the program in terms of its capability, look at the threat and might have to deploy that capability—again, depending on the threat—just based on three tests.

That is unprecedented for any of our programs in the Department of Defense. I would hate in terms of getting an effective program, an effective capability, to try to skip anything, rush anything. I just don't think there's anything more we can do.

Senator HUTCHISON. Well, I really was not in any disagreement with Senator Inouye about making sure that before we go into production we have it down right.

General LYLES. Yes, ma'am.

Senator HUTCHISON. But I just want to make sure we are doing everything in the research and development phase in as short a period as we can to make sure that we have it right with whatever testing is necessary to determine that and then be able to go into full production at the earliest time.

General LYLES. Yes, Senator. Given, again, the high risk associated with this compressed schedule we are doing everything. The one thing I keep getting reminded by the program manager, General Cosumano, is that even if we wanted to do some additional testing we have some what we call long lead times to actually buy hardware, put it together to support some of our supports. It takes 24 months to actually build up the kill vehicle on the top of the intercept missiles. And we don't think there's any more we could do to try to compress the schedule because of things like that, in addition to the high risk associated with it. But we are aggressively pressing on as fast as we can.

ARROW TECHNOLOGY

Senator HUTCHISON. The next question is regarding the Arrow. By sharing in the development of the Arrow, to the extent that you can say here, what are you learning and what is that going to do for our national missile defense or the THAAD? Are we learning things that are relevant for the development of our own missiles?

General LYLES. Yes, ma'am. And it is literally a two-way street. It's a shared development between us and the Israeli Government. We are learning things primarily that apply to our theater programs. In a couple of specific areas, the seeker, the mechanism that actually has to discriminate and determine what is the target in the threat environment, the seeker technology we're planning for the THAAD Program is identical to the seeker that is already in the Arrow system.

So it's a new technology for us to some extent here for our missile defense program. NSB is the scientific name for the specific seeker. They are using it, testing it, working with it today in the Arrow Program. We are applying the same technology to the seeker for the THAAD Program. So we're learning from them because they've had a lot more experience. There is shared technology work in terms of the algorithms we have to develop to seek, discriminate, and hit the specific target and so it really is sort of a shared development for us.

Senator HUTCHISON. Do you think it has a chance to help us work out the problems with the THAAD?

General LYLES. It does primarily from that one component, the seeker. Not some of the others because of the uniqueness in the system. The Arrow system is an endo-atmospheric system designed to kill the threat below 100 kilometers. THAAD is intended to be both endo and exo, to kill both slightly below and above 100 kilometers. So we're operating in two different regimes, but there are some lessons learned primarily on how do we use, how do we work

with this particular NSB seeker? That's the primary area where they've been able to help us.

And by the way, we have had THAAD people going to Israel and Israelis coming down to Huntsville to make sure that we are sharing in the technology from that standpoint.

Senator HUTCHISON. All right. Thank you very much, General.

General LYLES. Yes, ma'am.

Senator STEVENS. Senator Cochran.

BMDO COSTS

Senator COCHRAN. Thank you very much, Mr. Chairman. General Lyles, one of the questions that has come up is the total cost of the BMDO office and whether or not there are ways to achieve economies and use more program dollars for actual research and development of systems rather than on overhead and bureaucracy within BMDO. Have you taken a look at that and tried to find ways to cut down on the costs of the bureaucracy?

General LYLES. Senator Cochran, we—not only have I taken a look at it, but more specifically, my deputy, Adm. Dick West, who is sitting here in the audience, started looking at this issue before I came on board to BMDO. And I can tell you, Senator, we have literally scrubbed our program, scrubbed our office within the Washington community, but more importantly we put some mandates on our program officers out in the field to reduce their overhead. We have—that is a success story, and I'd love to come back and show you exactly what we've done.

Senator COCHRAN. It would be good if we could have some specifics. There is a question about whether you need congressional liaison, for example. When OSD already has that and each service has that, do you need that? That is an example.

General LYLES. Yes, sir.

Senator COCHRAN. But the specifics would be helpful in understanding your budget needs for the next—

General LYLES. I'd love to come back and show you, Senator, what we've done, also what I've mandated for the field. I think that's also critically important.

PROGRAM DEADLINES

Senator COCHRAN. There have been some questions already asked by other Senators about some of the specific programs and the progress being made to meet this Three-Plus-Three Program deadline. Let me ask you a question just looking at the logic of the current policy. Do you recall in your experience any other program for the development and deployment of a weapon system where we set up these deadlines like three-plus-three?

General LYLES. I cannot in all honesty recall any specific ones, Senator.

Senator COCHRAN. No; a lot has been made of the Welch report saying that what this has amounted to really is a rush to failure. Do you agree with that report? What is your reaction to it?

General LYLES. Well, again, Senator Cochran, while I agree with the key points made by General Welch and the other members of that study team about how we should do testing and we should do hierarchal testing, we also recognize that for our missile defense

programs we have some threats that we're very concerned about or emerging threats and so we have a hedge strategy in some cases where we recognize we're taking some high risk from normal practices to ensure that we can develop a capability as quick as possible.

The onus is on me. The onus is on all of us to go back and ensure as I stated earlier that we haven't deviated so much from that philosophy that we are going to have guaranteed failures. So we're going to go back and relook at our test programs.

LESSONS LEARNED

Senator COCHRAN. One thing that we observed is that there have been so-called unsuccessful intercept attempts in the THAAD Program. People talk about whether it is a success or unsuccessful, whether you hit it or you do not hit it, oversimplifying, I think, in trying to reduce complex information and data to a one sentence erroneous assumption. Has BMDO learned anything useful from these so-called unsuccessful tests that people criticize?

General LYLES. Yes, sir; we—actually, we always learn from unsuccessful tests. And there've even been statements made by people as notable as Dr. Gansler, our Under Secretary for Acquisition and Technology, that you learn more from unsuccessful tests than you do from successful tests. And that's literally true for the most part. We have learned a lot. We've learned a lot about our process for setting up the programs and reviewing the programs. We've learned a lot about making sure we stick to good, sound systems, engineering practices, for all of our programs.

We've learned some technical things; but in all honesty, I think the primary thing we've learned from the THAAD Program because those were different failure mechanisms and mostly all attributed to poor reliability or quality control is that we need to make sure we don't lose emphasis on that. So we have learned a lot, and we are applying those lessons learned to all of the other programs.

MANAGING PROGRAM RISKS

Senator COCHRAN. One thing that you said recently to the Armed Services Committee was that you would like to have more flexibility in the management of the missile defense program and that some of the risk in the program—when we were talking about rush to failure and that kind of thing—is due in large part to the schedule compression of current policy. Let me ask you, as a professional acquisition officer, if the National Missile Defense Program were to be put on a more normal schedule, like other programs for development and deployment, would this be helpful in terms of managing the risk and making a more rational program for the national missile defense system?

General LYLES. Senator, to answer your specific question as an acquisition expert and as a techie, a technology guy, you always want more time to do more testing, et cetera. So the answer to the question generically is you can certainly reduce more risk, have more confidence in the program when you have more time. This program is laid out as a hedge strategy though with a recognition that we need to take the risk because of the emerging threats out there. So we have to balance those two.

And one of the reasons for bringing a prime contractor on board is not just to have Government people looking at this, but to have industry, the top notch industry we have in our country, to take a look at this issue where are those specific risks and what kind of testing and schedules do we need to do to make sure we mitigate and reduce those risks so we can have a successful program.

Senator COCHRAN. Would you say if the NMD Program were restructured to require deployment as soon as the technology is ready, the system you are developing now and would put in the field could be accurately described as old or obsolete technology?

General LYLES. No, sir; I would not say it's old or obsolete. Everything we're doing in this area is sort of leading edge in many respects. So I could not use those adjectives.

THREAT AND COUNTERMEASURES

Senator COCHRAN. There is a program that we funded that simulates a country's capability to develop their own cruise missile from scratch. We are learning interesting things about what other countries, who are not considered to be threats in the missile technology area, are capable of doing. Is this a valuable learning experience for us in determining what the threat might be to our own country from missile technology development?

General LYLES. Yes, sir, Senator. As a matter of fact, I made a comment in my opening verbal statement that the threat and countermeasures program, which you have been very, very strongly supportive of, has been very helpful to us and will continue to be so to make sure we understand what are the capabilities out there.

The specific program you mention, as you know, we're trying to evaluate what happened in the flight test attempt to see if there was some error in accomplishing that program or whether or not that was some indication of how difficult the problem is. So we owe you and others an answer as to what that flight test failure indicated.

Senator COCHRAN. There is also a recent report about how outside assistance has helped accelerate the development of missile capabilities in other countries. One example was Iran receiving assistance from Russia in the development of the medium-range missile there; another is Pakistan, where we saw assistance from an outside country accelerate the missile development program. We directed in our bill last year, an assessment of the feasibility of other countries' abilities to construct long-range ballistic missiles.

What can you tell us about whether you have had an opportunity to examine ways to assess what new breakthroughs are possible in ballistic missile development and that other countries may be capable of from such outside assistance?

General LYLES. Senator Cochran, for that specific threat and countermeasures program, as you know, we just started in earnest to address that. We've laid out a sort of two phase approach in doing that. Starting with doing the kind of things any rogue nation or any nation might have to do and that's the initial design stuff, the design work and how can they actually do that.

Our team that's involved in that particular effort is now starting to do that, emulating a Third World country, if you will, to see how

tough that job is. And we're very hopeful we're going to get some answers as we proceed through that two phase program.

NAVY THEATER WIDE/THAAD

Senator COCHRAN. My final question is that the CNO told us the other day that he viewed the Navy theater wide and THAAD programs as complementary to each other from an operational military perspective. Do you share that view and can you explain why it is important to procure both of these upper tier theater missile defense programs?

General LYLES. Yes, sir, I do share that. Our analyses, operational evaluation analyses done sometime before I came on board and done a couple of different iterations since I've been at BMDO, show that we need our entire family of systems, upper tier and lower tier. When you think of THAAD specifically and Navy upper tier, you need to think in terms of specific scenarios. As an example, this is just one example, if you have a mature theater with assets on hand, et cetera, like THAAD for Navy upper tier, you can use that to counter the threat. But as we know, there are probably going to be scenarios where we have a developing theater where we don't have Patriots or THAAD's in theater, and the assets and capabilities provided by the Navy component that can literally steam and get ashore in the threat area in matters of days and give you the capability to protect incoming forces with their systems is just absolutely invaluable.

So they are very, very much complementary. And I think we stick to the premise we have to have them both.

Senator COCHRAN. Thank you very much. Mr. Chairman, I have a few more questions, but I think in the interest of time I will submit those for the record.

General LYLES. Thank you, Senator.

Senator STEVENS. Thank you very much, and Senator Dorgan was called to the floor. He also wants to submit his questions.

Senator Shelby.

THAAD STATUS

Senator SHELBY. Mr. Chairman, I have a number of questions that I would like to submit for the record. Other than that, I just want to welcome General Lyles. We worked together on a lot of occasions on this, and I may have missed this and this question may have already been asked and answered, General, because I was late getting here. But THAAD, where are we with THAAD at the moment?

General LYLES. Senator Shelby, we've been working diligently.

Senator SHELBY. If you have answered that, I will get it—

General LYLES. No; I don't mind. We've been working diligently for the last year to address the flight test failures and other anomalies we've had under the program. Primarily addressing the quality and reliability, systems integration, systems engineering testing that admittedly was not done robustly enough previously.

The four failures we had were all random different types of failures that all could be pinpointed to one key thing, poor reliability and quality work. We didn't understand the robustness of the design. So our focus has been one, to verify that the design is sound,

both we and Lockheed Martin, the prime contractor, have done that. And also to go back and do all the testing so we know exactly what we have, and we're now leading up to have our next intercept attempt that I feel confident we'll be ready for in the middle part of May, next month.

Senator SHELBY. General, why put so much emphasis on one test here, on one test there? Whereas if you tested, if you had 10 tests, you know if you hit 6 out of 10, you know you would adjust accordingly, but to just put all the emphasis on one test, especially where the technology is so promising is that sort of a shallow approach to that?

General LYLES. No, sir, it isn't, Senator Shelby.

Senator SHELBY. It does not seem logical.

General LYLES. It's not a shallow approach, but we have a series of tests, of course. But the reason we're putting so much emphasis is because we've had the four anomalies and four failures. And normally, in this stage of an acquisition program, a DEMVAL, demonstration validation, you expect to have failures.

Senator SHELBY. Sure, you do.

General LYLES. But our missile defense programs are so important—

Senator SHELBY. But you do not destroy the system because of that. You improve it and you learn.

General LYLES. Yes, sir; they are so important. The Congress has been so good about giving us resources. We need to make sure we understand and we've laid out the program. We're doing the right things, and we are leading to successful tests. So we are putting a lot of emphasis and have over the last year to make sure we understand everything about THAAD before we proceed to that next test.

Senator SHELBY. But, General, just one test, though. And it is all public, and let us say if it is successful, great; but what if it fails? But that does not mean the technology and I know it will be to some people in the press, oh gosh the technology is wrong, the wrong approach. You know what I am getting at.

General LYLES. I don't think that at all. I could certainly tell you my leadership doesn't think that. Dr. Gansler recently answered some questions from Congress about that subject.

Senator SHELBY. But why not more tests?

General LYLES. We have a whole series of other tests. So it's not just this one test. We have a whole series of tests. This one test has a couple of specific milestones associated with it that we've talked about a little bit and that's making the decision to proceed to procure these user operational evaluation systems. But there are still lots more tests that are required for the THAAD Program, and that's one reason why the first capability won't be into the field until the year 2006 because of all the tests that we really do have on the program.

Senator SHELBY. But you feel good about the basic technology of THAAD, do you not?

General LYLES. Oh, yes, sir. I do.

Senator SHELBY. OK.

General LYLES. I really do, and I feel very confident that the contractor, the prime contractor, has put a lot of attention to making

sure we address the things we should have addressed previously, but a lot of attention to making sure that we are ready to proceed with the program. So I feel confident about the entire team.

Senator SHELBY. Thank you, Mr. Chairman.

General LYLES. Thank you, Senator.

OUT-YEAR BUDGETS

Senator STEVENS. Thank you. General, I do not want to seem too negative, but the BMDO budget through 2003 does not include the \$3 to \$5 billion estimated to build or deploy even a single site national missile defense installation. It does not. Neither BMDO or the Army had budgeted the \$1.9 billion required to proceed with the next phase of development of the medium extended air defense system, MEADS, which is scheduled to start in 2000.

Congress asked BMDO to accelerate the Navy theater wide missile defense and build and launch a scale model space-based laser satellite estimated to cost \$4 billion. We had the feeling that if we went through the base closing rounds that we would find some of that money, but as a practical matter if you look at the budget this year compared to last year, the request is less than we had available last year.

We are now scheduled to spend more money on nation building in Bosnia and the deployments in Iraq and NATO expansion. And I have just been told that the bill between now and 2003 for environmental clean up on existing and active military bases is \$14 billion. Now, you tell me, General, do you think you are going to be able to find the money to develop a national defense system, develop MEADS, and accelerate the theater wide system and space-based laser in this climate?

General LYLES. Senator, with the exception of the issue about the deployment dollars for national missile defense, my challenge—one of my challenges for the 2000 POM that we are actively working right now is to figure out how to one, accelerate Navy upper tier, how to fund some form of MEADS Program and how to continue with the space-based laser development that we've laid out.

We have about \$100 million or so DOD money for the space-based laser. In terms of progressing toward a demonstrator, that perhaps is not enough to do it as aggressively as some would like us to do, but we still want to stay on that path. For the Navy upper tier, we have the challenge of refining and getting as much as we possibly can into our budget so we can get that capability by 2006; or if we can figure out how to get it into the budget, we're trying to see if we can get it by 2005.

And for the MEADS Program, because of its importance both in terms of requirements and international cooperation, we're working with our partners and working internal to the building to see how we can either squeeze it into my current portfolio, the budget that we have for BMDO or get additional money to support it. So we have a challenge, just like you've stated, Senator, to try to make all that happen in this 2000 POM we're pulling together. But that's the challenge we're trying to work.

Senator STEVENS. Well, are you looking at alternative ways to meet the MEADS requirement?

General LYLES. Yes, sir, we are.

Senator STEVENS. What options do you have there?

General LYLES. We've laid out a series of potential options that initially have been reviewed within the building by our comptroller community, but we have obviously been looking at it from an acquisition standpoint. They looked—they include a cost constrained program where we try to do and meet the requirements but do it for less than the dollars that you just stated. Working again, with our partners.

They look at an evolutionary approach where perhaps we don't develop every part of the MEADS Program initially. We develop most of it, but we defer development of some components. And we're looking at a few sort of out of the box things that can allow us to meet the requirements, but may not actually be able to be called a MEADS Program. So we are examining all the options to see how we can get a viable MEADS Program into our budget. But also we still want to try to protect the international cooperation.

CONCLUSION

Senator STEVENS. We are coming into a NATO debate this next week, the leader told us yesterday. And I have always supported NATO, but as one Senator, I have decided that I cannot see supporting this NATO expansion unless we get some change in our contributions to NATO. I do not think most people realize that we are still contributing at the level we did in 1950.

Before those nations had restored their economic capability and this article I call to your attention, Foreign Affairs Quarterly, about the costs of NATO expansion. Across the board, we see these—well, they are really not competing, but the other requirements coming into this defense bill. We are paying the cost of peacekeeping, out of this committee. We are paying the cost of environmental clean up, even on lands that are going out of Defense ownership, the moneys are coming out of the Defense budget.

And I personally see such a great strain on this budget that we will be prevented from achieving the objective that the Nation demands. Senator Bumpers was mentioning the concept of failure. I think it was Rickover who said, failure is no option. But also, the inability to provide the systems is no option either.

General LYLES. True.

Senator STEVENS. I hope that somehow that we can find some way to assure that you will get the money you need. Again, we opened the hearing by congratulating you. I think you are so far a magician. You have kept all these balls in the air at the same time. I do not know how you do it. You know, a friend of mine said, there is only one way to carry 10 tons of birds in a 5-ton truck; you have to keep a lot of them in the air.

You get these systems in the air somehow or other, and we applaud what you are doing. Again, I think all the questions you have heard reflect a sort of frustration with finding some solution here in matching our capability with our people's feelings as to what we have already. Each one of us, we travel around the country—I am sure you do the same thing, run into the feeling among the populous at large that we already have these systems why do we spend so much money on them.

I gave the comment to the American Chamber of Commerce in Paris about defense and that was the first question, why are you spending so much money, we have already got these systems. And it is amazing to me that we just cannot find the money to meet this demand. We hope that you have continued success and we are all going to keep our fingers crossed on this next test of yours.

General LYLES. Yes, sir.

Senator STEVENS. Somehow or other we have to get something to come along to get one of them to succeed and then I think we will have a different attitude toward it to allow us the funds that you need to complete your project.

General LYLES. Yes, sir.

ADDITIONAL COMMITTEE QUESTIONS

Senator STEVENS. Well, I have got some other questions I will submit. I do not know if anyone else had any questions.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

MEDIUM EXTENDED AIR DEFENSE SYSTEM [MEADS]

Question. General Lyles, has BMDO looked at pairing an advanced airborne radar sensor with a new or existing missile defense interceptor?

Answer. The Ballistic Missile Defense Organization (BMDO) has conducted an independent review of the MEADS program to address affordability. We have examined, with the Army, several alternative architectures, to include the use of new and existing interceptors, that will support the requirements of our warfighters and international partners. To date, no change in the MEADS program description has resulted from this review.

Inherent in the required capabilities of MEADS is the ability to incorporate all sensor data available on the battlefield, to include airborne radars. However, to substitute an airborne sensor for the organic sensor suites in MEADS would, most likely, jeopardize international participation in the program. Both Italy and Germany have an operational requirement for MEADS and it is highly unlikely that either country would be interested in pursuing a system that would require external sensors in order to function.

NATIONAL MISSILE DEFENSE [NMD] BASING

Question. General Lyles, what process will define near term threat and therefore drive the NMD deployment site?

Answer. Clearly, the ultimate decision to deploy a national missile defense system will most likely be made by the most senior DOD officials in consultation with the Executive and Congressional branches of the government. A key factor influencing this decision will undoubtedly be the source and nature of the threat facing the nation. Several agencies and processes contribute to this assessment. Intelligence community documents such as the National Intelligence Estimate (NIE) will contribute as well as the Department's Strategic Threat Assessment Report generated by the Defense Intelligence Agency (DIA). As far as the program is concerned, key milestones such as the fiscal year 2000 Deployment Readiness Review and subsequent annual reviews of the program by the Department will routinely assess the status of the threat for the purpose of developing a recommendation to the Secretary regarding deployment. This process is no different than that followed in determining the threat for any DOD acquisition program.

Question. General Lyles, is the Defense Department committed to the most effective NMD deployment, even if that dictates relocating our current ABM Treaty designated site?

Answer. The "3 plus 3" program has always been planned so that it complies fully with ABM Treaty constraints during the development phase, but we have been careful to point out that some potential deployments might require modification to the Treaty. We have accordingly designed the program to allow a system deployment

at a site, to be chosen after a threat is identified, which would optimize its capability to defend the entire country.

Question. General Lyles, has the Defense Department undertaken discussions or planning to lay the groundwork for changing the Nation's single missile defense site designated under the ABM Treaty?

Answer. Our NMD development program is treaty compliant and we have not settled on a deployment architecture. In fact, we will not settle on a deployment architecture until a specific threat is identified. We continually assess deployment locations throughout the United States as part of our planning to enable greatest flexibility in responding to various threats.

NATIONAL MISSILE DEFENSE [NMD] COST AND SCHEDULE

Question. General Lyles, as urgent as the THAAD requirement is, we currently plan to equip the first THAAD unit in 2006. Can you realistically develop and deploy an NMD system by 2003?

Answer. Yes, but with a high risk and a limited capability. The NMD Joint Program Office (JPO) has always believed that achieving an initial operating capability (IOC) by 2003 will require a highly successful and extremely well coordinated development phase over the next few years. However, there are no insurmountable technical issues and the new Lead System Integrator contractor, Boeing, has developed several architectures that could be deployed to reach IOC in 2003.

Question. General Lyles, are two intercept tests, one by each kill vehicle concept, a sufficient basis for an NMD procurement and deployment decision?

Answer. We currently have three intercept flight tests planned before the Deployment Readiness Review (DRR) including an Integrated System Test. However, the NMD Joint Program Office in conjunction with the Lead System Integrator are exploring the possibility of having a test in fiscal year 2000 prior to a DRR; due to its proximity to the DRR, the data from this flight may not be available at decision time.

THREAT DEVELOPMENT

Question. General Lyles, Iran's progress on developing longer range ballistic missiles clearly demonstrates that determined opponents can acquire theater ballistic missile capability. Do you believe that adversaries will also seek to add penetration aids, jammers, and maneuvering capability to their missiles in the near future?

Answer. We believe that some of our more capable adversaries have already incorporated ballistic missile defense countermeasures into their missiles. Our less capable adversaries will direct their efforts toward countermeasures in the future after they have established a baseline missile attack capability. For the most part, we foresee these countermeasures appearing on short range ballistic missiles 10 or more years ahead but somewhat sooner in the case of medium range missiles.

Question. General Lyles, would penetration aids, jammers, and maneuvering reentry vehicles significantly reduce the capability of THAAD, PAC-3, and the Navy Area Defense system?

Answer. Penetration aids, jammers, and maneuvering reentry vehicles are examples of potential countermeasures that could degrade the performance of theater air and missile defense (TAMD) systems. The TAMD systems are being developed with these and other countermeasures in mind; the ability to react to intentional or unintentional, sophisticated or primitive countermeasures are explicit requirements for the THAAD, PAC-3, Navy Area, and Navy Theater Wide Defense systems. The TAMD Family of Systems provides capabilities across a broad spectrum of threat vehicles and environments. The aggregate of the individual TAMD systems ensures a robust response to countermeasure attempts to degrade our ability to kill TAMD targets. The different sensors and intercept regimes (i.e., endoatmospheric, endoatmospheric/exoatmospheric, and exoatmospheric) make it increasingly difficult for enemy systems to effectively counter all elements of a multi-tiered defense.

THEATER HIGH ALTITUDE AREA DEFENSE [THAAD]

Question. General Lyles, I understand that the more thorough THAAD ground testing has identified several new hardware problems. Can you describe these and comment on whether these issues are resolved?

Answer. Over the past several months, the Project Office and the prime contractor have implemented a more rigorous ground test approach, as recommended by the independent review teams chartered after the Flight Test 07 failure. The program has conducted a complete reassessment of the acceptance test procedures and the environmental stress screening of the missile components and increased the ground test shock and vibration testing for several components to more thoroughly test the

packages. This increased discipline and more rigorous approach to ground testing has significantly increased confidence in the contractor's overall quality control and flight test preparation processes going into the next flight test.

This disciplined test approach has successfully identified and corrected problems in hardware, such as the communications transponder (CT), booster thrust vector control (TVC) firmware, and seeker inertial measurement unit (IMU), that may not otherwise have been discovered prior to flight.

While conducting the pre-flight ground testing in late December/early January, LMMS discovered anomalies associated with the CT and TVC firmware and had to change out these components. The CT is a device used to receive and transmit mission critical in-flight information with the THAAD radar. The firmware in the TVC, a subassembly of the missile booster, determines the steering commands to be executed during flight. In the case of the TVC, although LMMS was able to replace the FT08 booster with one that was already disassembled for re-ATP (acceptance test procedure) and re-ESS (environmental stress screening), they incurred a four week delay to assemble and retest the new package.

The IMU drift measurement problem was detected by LMMS during a pedigree review and was presented at the critical technical review as a concern. While the drift measurements were within acceptance test procedure specifications, as a precaution LMMS returned the IMU to Lockheed Martin Infrared Imaging Systems (LMRIS) to preclude any potential problems that could occur in flight. All three of these problems have been corrected.

PATRIOT ADVANCED CAPABILITY-3 [PAC-3]

Question. General Lyles, can you describe the challenges which are delaying the PAC-3 intercept test?

Answer. We have demonstrated many major design features of the PAC-3 missile in the first two control test vehicle firings. We have demonstrated launch operations, a responsive airframe, and correct operations of most major subsystems of the missile. We are now engaged in the final major step leading to the first intercept with the PAC-3 missile—the integration of the flight seeker and its software into the missile. This integration has presented significant challenges which have resulted in more software iterations than initially planned to resolve interface problems. We must also complete the integration of three hardware-in-the-loop facilities which enable us to integrate and checkout the flight hardware and software. The combined integration efforts are a complex technical challenge that resulted in moving the date for the first intercept flight test to the fourth quarter of this fiscal year. To assure ourselves that we are not missing any technical problems, a government missile flight readiness review team has conducted an intensive review of the engineering development program with the contractor. This team has extensive experience with managing missile and software-intensive development programs. Their conclusion is that the difficulties currently being encountered are not unusual for this kind of program. While progress is being made, it will probably require more time and resources than originally thought. We will continue with our event-driven philosophy and not proceed with the first intercept mission, DT-3, until these technical challenges are resolved, and the ground tests indicate we are ready. Based on the team's review we are confident that DT-3 can occur in the fourth quarter.

Question. General Lyles, with the Welch panel recommendations in mind, do you believe the current PAC-3 program includes adequate flight testing?

Answer. The principal observation of the Welch report on PAC-3 was that the flight test program and key milestones schedules are compressed. An integrated review of the program in March 1998 by BMDO, the program office, and the missile contractor resulted in the adoption of a flight test schedule that balanced programmatic and technical risks, such as those identified in the Welch Report; cost and urgency of the need for PAC-3. Actions have been initiated to provide the additional resources from within the program's budget to fund this schedule. The PATRIOT Program Manager has also developed contingency plans to enable repetition of test flights if a failure occurs. This plan would minimize the schedule impact if a flight test needs to be repeated, but would require additional funding to replace the hardware consumed.

The PAC-3 program faces a challenging mission to confirm its ability to consistently achieve hit-to-kill against an array of threat-representative targets. The Welch report echoes our view that the urgency of the PAC-3 program is not driving it to take high risk approaches to testing. The PAC-3 system differs somewhat from other TMD programs in that it employs more mature technologies which evolved from the ERINT and PATRIOT growth programs (QRP, Configurations 1, 2, and 3). PATRIOT is a mature program with well-established methodologies and a proven

history of success. The Welch panel indicated that the PATRIOT program has a legacy of disciplined design and engineering processes. We believe that the current flight test program has been carefully planned and follows a disciplined approach that enables the program to manage the risks incurred by the compressed flight test program.

Another key finding of the Welch report was that the technical demands of hit-to-kill require a rigorous ground test program, using high fidelity end-to-end system simulations and analysis to reduce known areas of uncertainty prior to flight. This ground testing should also include hardware-in-the-loop (HWIL) testing of critical flight hardware. The PATRIOT test program employs three HWIL facilities; one at LMVS to conduct closed loop flight operations with the missile hardware and software; a second, at Raytheon, that allows evaluation of ground system hardware/software interfaces with missile subsystems (hardware and software); and a third Government facility at AMCOM, Redstone Arsenal, Alabama, that gives increased fidelity of missile guidance accuracy with a high fidelity representation of the target in combination with natural and induced electronic countermeasures (ECM) flight environments. Over 1,000 flight simulations are run before each flight to ensure that any technical issues and other uncertainties are identified and resolved. The PATRIOT program also requires a series of three flight readiness reviews prior to each flight to ensure that the missile and system integration pre-mission analysis and flight test procedures indicate readiness for flight testing.

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

THEATER HIGH ALTITUDE AREA DEFENSE [THAAD] TEST PROGRAM

Question. General Lyles, much has been made of the Welch report's phrase, "rush to failure," particularly with regard to the THAAD program. In testimony before the Senate Armed Services Committee last month, however, General Welch said he had "little doubt that we do have hit-to-kill technology in hand" even if it had not yet been demonstrated through flight testing. Do you agree with General Welch's assessment?

Answer. Yes, I do agree with General Welch's assessment of the maturity of hit-to-kill (HTK) technology. The HTK concept, although technically challenging, has been successfully demonstrated in other missile defense programs. The PATRIOT Advanced Capability 3 (PAC-3) [formerly the Extended Range Interceptor (ERINT)] program is the most mature of the three BMDO HTK programs under development. Using HTK, ERINT successfully intercepted ballistic missile targets in fiscal year 1994 and PAC-3 is scheduled to begin additional HTK missions later this year.

The problems that THAAD has experienced in its attempts to achieve HTK intercept have, in general, involved missile reliability and systems engineering. Following FT-07, I chartered an Independent Review Team (IRT) to assess the mission critical functions and design margins, as well as to review the overall system concept. Though the review made a number of recommendations to improve the system reliability and to reduce flight test risk, the IRT concluded that the THAAD system concept and missile design are sound. Additionally, the IRT concluded that there were no fundamental design limitations that might preclude successful THAAD intercepts and none of the THAAD test failures to date challenge the feasibility of hit-to-kill.

SPACE-BASED MISSILE DEFENSE

Question. General Lyles, you were quoted last month in Jane's Defence Weekly as saying the "best way" to defend against future missile attacks is by using space-based laser weapons. Can you explain—from a technical standpoint—why that is, what advantages and disadvantages there are to such weapons?

Answer. An operational Space-Based Laser (SBL) system provides the potential for being the "best way" to defend against future ballistic missile attacks for two basic reasons: Early, boost-phase, destruction (prior to RV and Penaid deployment) and Global availability.

The SBL is an advanced technology, next generation concept designed to destroy ballistic missiles during the boost-phase. A significant advantage of being a boost-phase intercept system is that the engagements generally take place over the enemy territory rather than near the defended asset. The potential for dumping nuclear, biological or chemical weapons of mass destruction back onto the adversary's territory may provide a deterrence to even launching such systems. Secondly, the SBL will be immune to the many countermeasures that are conjectured to reduce the effectiveness of midcourse and terminal engagement systems.

An operational SBL system provides continuous, global coverage of ballistic missile threats. It is immediately available, i.e., it does not require transport of military resources or material to trouble spots around the world.

An SBL system is envisioned to augment current ground systems as part of a tiered defensive architecture. A boost-phase system does not remove the need for midcourse and terminal systems; rather, it greatly improves the effectiveness and robustness of the defense as a whole. For example, in the early stages of a theater conflict, the SBL can help defend our access to points of entry allowing the Airborne Laser (ABL) and terminal phase systems to set up and operate in theater. Use of the easily refuelable ABL for boost phase intercept shots where possible would preserve the magazine of the SBL for other missions. For National Missile Defense (NMD), the SBL would similarly provide the first tier of defense for the ground-based NMD system.

A perceived disadvantage to the current chemical SBL system concept is its finite magazine depth (number of times that the laser can fire) before refueling is required.

AIRBORNE LASER [ABL]

Question. General Lyles, the GAO has recently written a critical report on the Airborne Laser program. Do you share GAO's dim view of this program?

Answer. No. The Government Accounting Office's (GAO) primary concerns were with atmospheric turbulence. Recent testing addressed these concerns and they no longer appear relevant. In the early summer of 1997, the GAO took issue with the Air Force's non-optical method of measuring atmospheric turbulence (it measures air temperature variations which are translated into optical turbulence values). The GAO expressed concern that non-optical method might not be as accurate as required and suggested that the more complex and more expensive optical technique of passing a laser beam between two aircraft would be preferable. Since ABL's turbulence design specification is based on non-optical measurements, the GAO warned that the ABL specification may not be correct and the expected turbulence could be understated. The GAO's concerns with turbulence were cleared up in late August 1997 when the Air Force demonstrated correlation and equivalency between the non-optical and optical methods. OSD conducted an independent analysis and agrees that the methodologies correlate. Using the validated non-optical method, the Air Force has collected over five times the amount of turbulence data available at the time of the GAO investigation in Northeast and Southwest Asia. The results of this in-theater data collection validate ABL's design specification—over 80 percent of the measured optical turbulence levels are equal to or more benign than ABL's design specification.

LONG-RANGE AIR LAUNCHED TARGET [LRALT]

Question. General Lyles, in testimony before the Senate Armed Services Committee last month, Ambassador David Smith suggested that BMDO was adding unnecessary requirements to the Request for Proposals for the Long-Range Air Launched Target in order to avoid possible complaints from Russia.

- a. Has the Request for Proposals (RFP) for the LRALT been issued?
- b. Does the RFP direct the designers to include a wing?
- c. Is the wing necessary to meet the LRALT's performance requirements?
- d. Is the LRALT compliant with the START Treaty even without a wing?
- e. If the LRALT is compliant without the wing, why is the wing being required?
- f. What is the total cost of this requirement?

Answer. a. Yes, the RFP was released on April 16, 1998 and we expect to receive proposals from industry on May 15, 1998.

b. Yes, the RFP states that the LRALT vehicle shall sustain flight over some portion of its boost phase by incorporating a wing that produces a vertical component of lift greater than the weight of the vehicle for at least 10 seconds.

c. Our engineering assessments are that a wing would probably not be necessary to meet the LRALT's performance requirements as currently defined. The addition of a wing, however, would in some circumstances enhance the performance of this target vehicle, which in turn would provide a greater margin to meet possible future requirements.

d. BMDO does not have the authority to determine whether LRALT or any other system is treaty compliant. To date, no final determination has been made as to the START Treaty compliance of the LRALT vehicle since the system's design is not settled. Preliminary review, however, indicated that an unwinged LRALT raised START Treaty compliance issues that pose unacceptable risk of delaying the program. The Department decided that adding a wing which provides aerodynamic lift

would help avoid concerns involving START Treaty provisions dealing with air-to-surface ballistic missiles.

e. Same as d above.

f. We have estimated the LRALT total cost for design, development, and a demonstration flight test to be approximately \$45 million. The additional cost of incorporating a wing onto the LRALT vehicle is estimated to be \$5 to \$10 million. Subsequent flights to support the theater missile defense (TMD) test programs will be bought on a per use basis.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

ADVANCED RESEARCH CENTER [ARC]

Question. a. What is the current budget for the ARC? What is BMDO's future funding profile for this facility and on what did you base these numbers?

b. In reference to your letter dated April 1 that stated that BMDO would conduct a requirements review to determine the ARC's budget, why would BMDO cut the future funding for the ARC before they initiate the requirements review process?

c. Will the Army officials who manage the ARC participate in the requirements review process, and if so, at what stage of the process? If not, why not?

Answer. a. In the fiscal year 1999 President's Budget Submit, the ARC was funded as follows: \$17,341,000 in fiscal year 1998 (included \$7,000,000 Appropriation plus-up); \$7,756,000 in fiscal year 1999, \$7,119,000 in fiscal year 2000; and \$21,819,000 for fiscal year 2001-03. Based on recent ARC requirements discussions, fiscal year 1998 planned funding was revised to \$17,100,000. Current fiscal year 2001 through fiscal year 2005 ARC funding is shown as zero within BMDO's financial planning database pending the outcome of BMDO's more comprehensive total infrastructure requirements review to be conducted this summer.

b. The requirements review will be conducted in the summer of 1998. Until the review is completed, BMDO will not finalize the budget for the ARC or any other infrastructure facility.

c. Yes. The Army officials who manage the ARC will be full participants in the review process.

KINETIC KILL VEHICLE HARDWARE IN THE LOOP SIMULATOR [KHILS]

Question. a. Why did you direct, and I am quoting from your April 1 memorandum, that "all interceptor development programs funded wholly or in part by BMDO * * * to use the * * * Kinetic Kill Vehicle Hardware In The Loop (HWIL) Simulator facility at Eglin Air Force Base?

b. Doesn't the effect of your policy take away work that has been conducted in Huntsville? If so, what is the basis for that?

c. I am told that IDA conducted a study that identified KHILS as the only Hardware-In-The-Loop facility required by BMDO for infrared radiation Hardware-In-The-Loop testing. Did any of the members of the IDA study team have any direct Hardware-In-The-Loop infrared (IR) missile testing experience?

d. Since the BMDO's charter is not to duplicate existing Service facilities, why did BMDO develop KHILS and why are you duplicating other existing test facilities, such as Arnold Engineering Development Center, especially considering your present funding challenges?

Answer. a. The KHILS test facility was begun by then Strategic Defense Initiative Organization (SDIO) in the 1980's under Air Force management to take advantage of the technical expertise of the Air Force gained from the Advanced Medium Range Air-to-Air Missile (AMRAAM) HWIL experience. The facility has been designed to perform dynamic, closed loop HWIL experiments using realistic IR scene generation and projection techniques. Thus it simultaneously tests the IR seeker, electronics, and controls under simulated flight conditions. The kill vehicle may then be tested under a wide variety of conditions and scenarios. Through the years the KHILS facility has become DOD's center of excellence for these measurements. As the ballistic missile defense (BMD) Acquisition Executive, I have several concerns about the management and use of key test and engineering capabilities for our BMD interceptors in development. First, my objective is to avoid investments in facilities that fail to provide lasting value to the DOD test and evaluation infrastructure. This policy provides firm guidance aimed at preventing duplication of IR HWIL facilities within the DOD. Second, I am ensuring that every program has access to the technical expertise, equipment, and support it needs for accomplishing its test and engineering milestones successfully. In my judgment, KHILS provides the "best technology and best practices" applicable to all our IR interceptor programs. My policy memo allows

for waiver procedures to avoid creation of program bottlenecks, and, as required, BMDO will provide mature technologies to other facilities to ensure the best practices are baselined among BMD programs. Third, the experience, the lessons learned, and the data developed from one interceptor program's test events can be utilized, compared, and applied by other programs, thus accelerating their development cycle. By directing them all to use KHILS as a common facility, I am giving our overall program another important means for advancing in an integrated, cost-effective way.

b. At this time it is not clear what impact this policy will have on other Service facilities which could provide IR HWIL support to BMDO programs. The primary purpose of this policy is to baseline the best technologies and contain costs by preventing duplication of IR HWIL facilities. If a BMDO program has requirements which cannot be accommodated at the KHILS facility, the policy provides guidelines for our programs to request exceptions to the policy based on program unique technical, cost, and schedule considerations. Requests for waivers will be validated by the BMDO System Architecture Engineering Board. This review process will determine the level and distribution of our HWIL workload, however, I do not anticipate a significant adjustment in the level of HWIL work being conducted in Huntsville.

c. The IDA study did not identify KHILS as the only Hardware-in-the-Loop facility required by BMDO. The study concluded that, "Both Army Aviation and Missile Command (AMCOM) and KHILS would probably yield valuable data on seeker performance, particularly given the absence, to date, of any high fidelity HWIL simulations of the endgame," while admitting that, "A definitive assessment of the ability of KHILS and AMCOM to test the THAAD seeker is limited by a lack of experimental data." The study did express a preference for the resistive array technology used in the KHILS over the Laser Diode Array Projection (LDAP) technology used by AMCOM. We should note that since the study, Lockheed Martin is negotiating to purchase a resistive array for work on THAAD at Sunnyvale, while the Navy's Applied Physics Laboratory (APL) has acquired a resistive array for its theater ballistic missile defense (TBMD) programs.

The members of the IDA study team have several years experience with the KHILS, AMCOM, Johns Hopkins University (JHU)/APL, and Arnold Engineering and Development Center (AEDC) facilities. They have extensive knowledge of BMD interceptor and surveillance systems, and I consider them well qualified to address IR HWIL testing.

d. When the Strategic Defense Initiative Organization began development of Kinetic Kill Interceptor Systems in the 1980's, they found it required high fidelity, fast framing, infrared imaging seekers to provide the precision performance data necessary to perform hit to kill intercepts. As these imaging systems were developed and matured, the complexity of functions assigned to these kinetic kill weapon systems amplified the need for a new generation of robust hardware-in-the-loop (HWIL) simulation technologies and facilities, specifically designed to address hypervelocity, hit to kill intercepts with infrared seekers.

The Munitions Directorate of the Air Force Research Laboratory was selected as the single IR HWIL development and test organization, and the Kinetic Kill Vehicle HWIL Simulator (KHILS) facility was developed to accomplish this role. Designation of a single facility allowed us to control repetitive development and learning curve costs associated with each of our interceptor programs. In this role, KHILS has continually advanced the state of infrared HWIL technology. Their work in the areas of real-time infrared scene generation and projection technology has been exemplary. Due to the work at KHILS, we have the technology in hand to perform realistic, robust HWIL testing of our infrared interceptor systems.

The KHILS facility and those at the Arnold Engineering Development Center are not duplicative. The KHILS facility is used to address closed-loop HWIL testing of BMDO interceptor systems with infrared sensors, and develop technologies associated with the generation and projection of infrared scenes. The BMDO sponsored facilities at AEDC are used to performed open loop calibration and characterization of space based infrared sensor systems.

ATMOSPHERIC INTERCEPTOR TECHNOLOGY [AIT]

Question. a. I was pleased by your decision to make the AIT program your number one support technology program. You are currently using SMDC to execute the program. Do you intend to continue utilizing SMDC to execute all AIT development activities in the future?

b. You directed the AIT to focus on developing technologies for low endo atmospheric interceptors. Do you intend to use AIT to develop high endo atmospheric interceptors in the out years?

c. It is my understanding that the Discriminating Interceptor Technology Program is being executed by BMDO. Why is there not a Service Execution Agent for this program?

Answer. a. Executing agents for AIT development activities currently include SMDC and Navy China Lake. Executing agents are selected based on their capabilities, related experience in the technologies being developed, and ability to develop and implement transition paths to enable infusion of the technology into the system program for which it is intended. We expect that SMDC will continue to be a principal executing agent for AIT development activities.

b. AIT will focus on developing component and subsystem technologies for those missile and air defense interceptors which fly within the atmosphere: principally PAC-3, Navy Area Defense, MEADS, and THAAD. All of these systems, with the exception of THAAD must operate as missile and air defense interceptors with mission altitudes extending down almost to the surface. The most pressing technology requirements encompass the low endo-atmospheric battle space. The new direction for AIT is to ensure the technologies developed are applicable to these principal technology customers. For these reasons, I have focused AIT to develop those technologies needed for all of our current and future atmospheric interceptors. AIT development thrusts will be coordinated with other technology programs to provide leverage and avoid duplication of effort.

c. The Discriminating Interceptor Technology Program (DITP) is centered about the requirements of the Services and the major defense acquisition programs (MDAP's) to counter the anticipated advanced missile threat and associated counter measures. DITP is focused on the regime where the physics of the problem are not significantly influenced by atmospheric properties. This is in contrast to our AIT program, which must, for example, consider aerodynamic lift and drag as well as other effects. BMDO provides Program Integration of DITP activities. Current Executing Agents for DITP include the Army, Air Force, Navy and BMDO to maximize leveraging opportunities, avoid duplication, and to exploit of the unique experience and qualification provided by the various Service agents. We expect that DITP will continue to be executed as a tri-Service program.

QUESTIONS SUBMITTED BY SENATOR DALE BUMPERS

TARGETS AND COUNTERMEASURES

Question. To what extent, if any, will each of our hit-to-kill ballistic missile defense systems be flight tested against realistic targets that emulate the countermeasures and penetration aids that could reasonably be incorporated on threat missiles, including early release submunitions?

Will such intercept tests, if any, be part of a complete integrated systems test?

Answer. THAAD: Prior to Milestone II, the THAAD test program includes radar discrimination testing against threat representative targets and targets with countermeasures. During Engineering and Manufacturing Development (EMD), the test program includes intercepts against threat representative targets with countermeasures.

NTW: Prior to Milestone II, the NTW test program includes flight testing against basic threat representative targets. During EMD, the test program includes intercepts against advanced threat representative targets.

PAC-3: The PAC-3 test program, currently in the EMD phase, includes flight testing against threat representative targets and targets with countermeasures. The test program also includes testing that will validate the radar ability to perform classification, discrimination, and identification of threat representative targets and targets with countermeasures.

NATIONAL MISSILE DEFENSE [NMD]

Question. Is NMD being designed to cope with the stressful flight characteristics and capabilities of Russia's new SS-27? Will NMD be flight tested against a target that will emulate the flight characteristics and penetration capabilities of the SS-27?

Answer. The NMD system is being designed to cope with sophisticated missile systems. However, our primary focus for near term development and testing for a potential 2003 deployment is on less sophisticated threats, such as those that may be developed by a "rogue" adversary, with some added penetration aids. Over time, as the NMD system matures past its initial capability, the planned NMD development strategy is to evolve the system capability to address more stressing threats. This planned evolution includes the additional sensing and battle management up-

grades necessary to successfully negate sophisticated missiles, warheads, and penetration aids.

THEATER HIGH ALTITUDE AREA DEFENSE [THAAD]—NAVY THEATER WIDE DEFENSE [NTW]

Question. I understand that THAAD and Navy Theater Wide are optimized for exoatmospheric intercepts of longer range (1,000–2,000 kilometers) theater ballistic missiles.

How effective will each system be against short range Scud-type missiles that spend very little time at high altitude?

Answer. NTW is an upper tier defensive system designed to provide protection against medium to long range TBM's in the exoatmosphere that has no capability against the short range Scud-type missiles. THAAD is designed to provide protection against short to long range (in excess of the range specified in your question) TBM's in both the endo and exoatmosphere and has the capability to engage the short range Scud-type missiles. Both THAAD and NTW are employed in concert with lower tier systems to provide defense in depth against short and long range threats.

QUESTION SUBMITTED BY SENATOR FRANK R. LAUTENBERG

NAVY THEATER WIDE PROGRAM [NTW]

Question. General Lyles, regarding the Navy Theater Wide Program, would you please comment on the relative amount of funding going toward system and radar technology versus missile technology?

Answer. To date, the majority of the Navy Theater Wide (NTW) program funds have been used for development of the Standard Missile (SM) interceptor. Of the subsystems that comprise the NTW system, we believe the interceptor to be the most challenging. Although it leverages off the SM legacy, it integrates an IR Seeker and is the first SM variant to prosecute the threat in the Exoatmosphere. The Aegis Weapon system and radar technology, while challenging, leverage off the existing Aegis Weapon system and more importantly the Navy Area Defense Theater Ballistic Missile Defense program. Recently however, a large portion of NTW risk reduction activity funds have been targeted toward both the NTW Aegis Weapons System Computer Programs and radar technology.

QUESTIONS SUBMITTED BY SENATOR BYRON DORGAN

NATIONAL MISSILE DEFENSE [NMD]

Question. If NMD were a program with a normal development timetable, what would its schedule look like? When would it be ready to deploy? By how many years, roughly speaking, does the "3+3" schedule reduce the time normally needed to develop this program?

Answer. The Department has directed that the current NMD program be a "3+3" program, with the potential requirement to meet a deployment date of 2003, consistent with Public Law 105–85. A normal MDAP NMD acquisition program was considered as part of the "Quadrennial Defense Review" (QDR) analyses that were prepared last year. Such a program would most likely conduct program definition and risk reduction activities through 2003. At that time it would most likely reach the equivalent of a MS II decision, from which an Engineering and Manufacturing Development phase could be initiated. An initial operational capability under these assumptions could be reached by 2006 at the earliest.

The benefits of such a schedule change were perceived by the QDR as greater schedule realism based on historical experiences. However, they also noted the potential that the threat might emerge before a deliberate program reached maturity, a concern also expressed by both the Congress and the Department. It should be noted that while we are executing "3+3", we have not discarded the normal departmental requirements to have metrics as criteria for passing to the next phase or manufacturing milestones such as design reviews, the DRR (Deployment Readiness Review) and IST's (Integrated System Tests).

The QDR reached the conclusion that a high risk 3+3 program was justified based on the potential need for an NMD deployment. Following that decision, the NMD Program has been focused on meeting the 3+3 goals, and accordingly, we have not pursued the definition of a more deliberate program any further.

WELCH REPORT

Question. Why did the Ballistic Missile Defense Organization sponsor the creation of the Welch independent review panel?

Answer. The Director, Ballistic Missile Defense Organization (BMDO), the OSD Director for Operational Test and Evaluation (DOT&E), and the OSD Director for Test, Systems Engineering and Evaluation (DTSE&E) co-sponsored the independent task force which reviewed best technologies and practices for successful flight testing. The purpose of the task force was to independently review current and planned pre-flight testing practices for hit-to-kill interceptor programs, assess their adequacy, and identify innovations that are needed to provide a high level of confidence that each flight will be successful. BMDO believes that it is the mark of a good organization to benchmark itself against other similar activities past and present. We believe in continuous process improvement.

Question. To quote two of the Welch panel's "key judgments" in its report, "The strategy of accepting a high level of risk to shorten schedule time has been counter-productive. * * * [2] There are high schedule risks and inadequate test assets and testing planned in the 3+3 program. In the judgment of the study group, successful execution of the 3+3 formulation on the planned schedule is highly unlikely. The program will benefit from the earliest possible restructuring to reduce risk." What is BMDO doing to restructure the NMD program to reduce the risks of schedule slippage and program failure?

Answer. I have asked all Program Executive Officers and Program Managers to review the findings and recommendations of the Welch report and to conduct an assessment of the programs. The goal is to determine how the concerns raised in the report are being implemented, if applicable. Further, I have told everyone I will invite the Welch panel to review the NMD program later in the summer after the LSI has established a program baseline and test and evaluation plan.

Question. The Welch report points out that while the "3+3" plan started in October 1996, we still don't have a Lead Systems Integrator contract. Would it be reasonable to restart the "3+3" time frame when that contract is awarded later this Spring?

Answer. The Department has directed that the current NMD program with the "3+3" schedule, including the potential requirement to meet a deployment date of 2003, remain consistent with Congressional mandate (Public Law 105-85). The Lead Systems Integrator contract will be consistent with this schedule.

NATIONAL MISSILE DEFENSE [NMD] SITING

Question. Has the Joint NMD Program Office been inspecting sites in Alaska to evaluate them as possible sites for deployment of a national missile defense system? How many sites have been inspected?

Answer. The National Missile Defense Joint Program Office has performed preliminary fact finding trips to existing Department of Defense (DOD) controlled sites in Alaska for potential use in deployment of a National Missile Defense System. Nineteen DOD sites in Alaska have been visited. These visits were used to support the LSI source selection process. The data collected, when coupled with our extensive North Dakota site data base, are important to allow us to carry out reasonable deployment planning without having to have a deployment decision prior to 2000.

Question. Last year, in response to a similar question that I asked on this subject, BMDO stated for the record that "before BMDO takes any action that could reasonably raise an issue of ABM Treaty compliance, we must seek clearance from the Under Secretary of Defense for Acquisition and Technology." Did BMDO seek this clearance before it examined the impermissible sites?

Answer. The BMDO National Missile Defense Joint Program Office is performing analyses and planning to support a Deployment Readiness Review in 2000 and potential deployment of a National Missile Defense system within three years of such a decision. BMDO will seek the proper approval from OSD when it becomes necessary. No such clearance is necessary at present to collect data in order to be able to lay out potential deployment sites for OSD review.

NATIONAL MISSILE DEFENSE [NMD]

Question. Is it technologically possible to have an effective national missile defense against limited attacks? Would you deploy such a system now? If not, why not?

Answer. Although much work needs to be done, we see no engineering or technological impediments to deploying a national missile defense system that is effective against limited attacks. The NMD JPO has always believed that achieving an IOC

by 2003 will require a highly successful and extremely well coordinated development phase over the next few years. However, there are no insurmountable technical issues and the Lead System Integrator (LSI) contractor, Boeing, has proposed a program approach to achieve an IOC in 2003. It would be extremely difficult to make a deployment decision now given the elements haven't yet been sufficiently developed, integrated, and tested in a fashion commensurate with making a prudent decision.

Question. Does this mean that when considering whether to deploy NMD, the Congress and the Administration should consider other issues besides whether it is "technologically possible" to have an "effective" system?

Answer. What the Administration should consider before deployment is beyond the charter of BMDO. From a programmatic perspective, however, I assume the successful demonstration of the system's capability will be key.

Question. In your prepared statement, you mention BMDO's plans for the first intercept test for the NMD program.

- a. When will that test occur, in your view?
- b. Do you know which vehicle BMDO will use to launch the exoatmospheric kill vehicle (EKV) from Kwajalein Missile range?
- c. How many NMD intercept tests will there be before we reach the decision point, in the year 2000, on whether or not to deploy NMD?

Answer. a. The date for IFT-3 is currently under review, based on current test status and LSI testing approach.

b. The first intercept Flight Test (IFT-3) will use the Payload Launch Vehicle (PLV).

c. Currently there are four intercept tests scheduled before the DRR. IFT-3 and IFT-4 are designed to be intercept tests of the two competing EKV designs. IFT-5 and IFT-5A are Integrated System Tests that will test system integration in addition to an intercept of the winning EKV design. However, the government and Boeing are in the process of reviewing the outlined NMD Test and Engineering Master Plan and schedule based upon the LSI award.

Question. What is the status of the Air Force's Minuteman option for national missile defense at this point?

Answer. There is only one Department of Defense national missile defense program, the "3+3" program which is managed by the NMD JPO. While developing the NMD program, a number of alternative options were studied. After review of these options, it was decided to retain some Minuteman test resources and the booster as potential system components. A booster for the NMD 3+3 program has not been selected at this point. Currently, the Minuteman booster is under consideration as is a Commercial Off-The-Shelf (COTS) booster. The selection will be made by the Government within 90 days of the Lead Systems Integrator contract award.

THEATER HIGH ALTITUDE AREA DEFENSE [THAAD]

Question. Does the next THAAD test, in early May, have as one of its goals the interception of the target? If the interceptor misses the target, how can this subcommittee justify continued funding of the THAAD program?

Answer. Yes, an intercept is one of the flight test goals. Even in the event of an intercept failure, the requirement for a land based upper-tier Theater Missile Defense (TMD) system will still exist. The Department has invested over \$3.2 billion in the program to meet a critical warfighter need for this capability and despite previous missile intercept failures, all other elements (radar, battle management and launcher) of the system are working.

ARROW

Question. Defense Secretary Cohen visited Israel this week and met with Israeli Defense Minister Mordechai. Press reports quoted the secretary as saying after the meeting that "we agree that Israel needs a third Arrow battery to improve its defenses against missile attack * * * [W]e are committed to the research and development level of funding." In light of this statement by the Secretary, how would you suggest that we act in order to secure the funding needed to help Israel as it works to obtain a third Arrow battery?

Answer. The Government of Israel estimates that a Third Arrow Battery (which includes radar, launch control center, fire control center, launchers, and interceptors) will cost about \$170 million. The Department of Defense agrees with Israel's assessment that a third Arrow Battery is a valid requirement for Israel's defense. However, due to budgetary restrictions and a lack of funding for critical U.S. ballistic missile defense programs, the Department is not prepared to ask Congress for any additional funding to cover a third Arrow Battery. If Congress appropriates an

additional \$45 million in fiscal year 1998, BMDO could use this to fund a greater share of the development, manufacture, and testing of the Arrow user operational evaluation system under the Arrow Deployability Program (ADP), this would then free-up \$45 million in Israeli national funds that could be applied toward the procurement of a third Green Pine radar (for the third Arrow battery) in fiscal year 1998.

Question. In 1996 the U.S. and Israel signed a cooperation agreement on the Arrow program anti-ballistic missile system. The U.S. share of the program was to be \$48 million, or \$12 million a year over four years. This agreement was to lead to higher interoperability between U.S. and Israeli systems. Last year, Congress added \$12 million to meet the U.S. commitment under the agreement. Could you please tell us what progress we have made in implementing this agreement? Do you support the Congress adding \$12 million in fiscal year 1999 to meet our commitment? Will the Administration be including this sum in its future budget requests?

Answer. The Arrow Deployability Program (ADP) international agreement was amended in February, 1998, specifically to implement Arrow Weapon System (AWS) interoperability with U.S. systems and to enhance the effectiveness of the AWS. The U.S. added \$48 million to the ADP agreement over four years (\$12 million per year), subject to the availability of funds, and Israel added \$12 million over four years (\$4 million per year). A Joint U.S. and Israeli implementation team was immediately formed and a program was developed to implement functions and equipment to allow the AWS to interoperate with U.S. theater missile defense (TMD). The first supporting hardware was delivered and installed in Israel in late April, 1998, and Israel has begun procurement of necessary the Joint Tactical Information Distribution System (JTIDS) equipment capable of exchanging data with U.S. TMD systems. If funding is continued, the software development and the hardware integration now underway will culminate in fiscal year 2001 with the demonstration and validation of AWS interoperability with the U.S. AEGIS and Patriot TMD systems.

BMDO supports Arrow interoperability with U.S. TMD systems. The \$12 million in fiscal year 1999 funding is needed to fund U.S. obligations under the amended ADP international agreement. Due to budgetary restrictions and a lack of funding for critical U.S. ballistic missile defense programs, the Department is not prepared to include the needed funding in future budget requests.

SUBCOMMITTEE RECESS

Senator STEVENS. Do you have any further questions, gentlemen? Thank you very much, General.

General LYLES. Mr. Chairman, I thank you and Senator Inouye, Senator Shelby for your strong support. Thank you.

[Whereupon, at 11:42 a.m., Wednesday, April 22, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

WEDNESDAY, MAY 6, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:22 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.
Present: Senators Stevens, Cochran, Domenici, and Inouye.

DEPARTMENT OF DEFENSE

U.S. PACIFIC COMMAND

**STATEMENT OF ADM. JOSEPH W. PRUEHER, U.S. NAVY, COMMANDER
IN CHIEF**

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, Admiral. We are delighted to have you here, our Commander in Chief of the Pacific.

Congress has passed the \$2.9 billion supplemental for this year. Several members of our committee went with us to the Middle East, and we have been meeting with military officials and others since we got back, because of our questions about morale, and readiness, and force levels.

I know you have some problems about your missions, and deployments, and we want to know how you are impacted by these deployments. Some of them are under your command. I know that the aircraft carriers that have been dispatched to the Persian Gulf are under your command.

So let me say, in the interest of time, I will put my full statement here in the record, and we will print your statement fully in the record. We hope there will be others here, but I have to tell you, in our absence they scheduled a vote here soon, so we should listen to your statement, and then we will come back and have questions. Senator Inouye.

[The statement follows:]

PREPARED STATEMENT OF SENATOR TED STEVENS

Good morning, the subcommittee today will hear from Admiral Prueher, Commander in Chief of the U.S. Pacific Command.

The Congress recently passed the \$2.9 billion defense supplemental bill for fiscal year 1998. That amount was provided to the Department of Defense for costs resulting from ongoing contingency operations in Southwest Asia and Bosnia.

As you may know, several members of the committee just returned yesterday from a visit to our forces in Kuwait, Saudi Arabia and Bosnia, and to NATO headquarters.

In each country, we met with American military personnel, State Department officials, and allied leaders.

The delegation set out to assess the existing level of allied support, and to measure the effects of deployments on troop morale, readiness and the viability of modifying existing force levels.

Admiral, today we want to know whether these other missions and deployments are impacting the readiness of forces under your command or the quality of life of your people.

Admiral Prueher, your full statement will be included in the record.

I ask that you summarize the issues that you would like us to focus on during today's hearing, and then I believe all of us will have some questions that we would like to ask you.

Before we proceed, I would like to call upon the ranking member, Senator Inouye, for any comments that he would like to make.

STATEMENT OF HON. DANIEL K. INOUE

Senator INOUE. Mr. Chairman, I wish to join you in welcoming the Admiral to the committee. As you know, Admiral, we look upon the Pacific as an important place, not only because we represent States in the Pacific rim, but because we recognize the growing importance of this region. So I, together with the chairman, look forward to your views.

Admiral PRUEHER. Thank you, sir.

Senator STEVENS. Yes, sir.

Admiral PRUEHER. Thank you very much, Mr. Chairman, and welcome back to all of you. Senator Inouye, it is a treat to be here with you today, and I thank you for the opportunity to represent the men and women of the Pacific Command, and also present a view from the Pacific and an update on what we are doing there.

In addition, I thank this committee especially for their steadfast support to the members of the armed services for our piece of national security, and more specifically, for passing the supplemental, which will be of great benefit to all of us.

What I would like to do this morning, and I will do it as quickly as I can, is present an assessment of the Pacific theater, provide a little bit of a logic train, which both of you all have heard before, for the framework for our priorities, and what we are working on, talk for a moment about readiness, and then be happy to take your questions.

The fundamentals and what we are doing in the Pacific are constant, but we adjust the activities to meet the circumstances. As both of you all know so well, the Pacific Command AOR is of great importance to the United States, with 56 percent of the population in the world there, 35 percent of the population of the world in India and China alone, and 65 percent of the world's population, when one considers the Pacific rim in total.

The six largest armed forces in the world are in the Pacific region, and 35 percent of the U.S. trade is there. It is peaceful, but we always are reminded of the fact that since 1950 the number of people who have been lost in the armed services in the Pacific have been higher than the rest of the world combined.

Our mission for the Pacific Command is for a secure, and stable, and prosperous Asia Pacific region as part of our national military strategy. Our foundation of what we do is based upon two prem-

ises. One is the confluence of trying to work the political, the military, and the economic issues together, to work them in consonance, and not get one far out ahead of the other.

The second premise is that military security underwrites the stable conditions which allow for economic and political prosperity to occur.

As Secretary of State Albright has said, the economic system rests on political order, which in turn, rests on military security, and this leads to our strategy in the Pacific, which flows from the national military strategy of shape, respond, and prepare, with which you are familiar, but ours is one of preventive defense, which is what we do day to day.

It consists of exercises, what we modestly call high-level meetings with other nations, it's ship visits, it's what we do day to day. It consists of meetings, such as what we did last night with the National Defense University about the Asia Pacific. It consists of classes of the Asia-Pacific Center for Security Studies which is off to a good start, with Gen. Hank Stackpole. But this is what we do day to day to build relationships and to prepare and train our forces to respond to crises.

The second part of our strategy is crisis response, and there are examples of this. We respond with credible and ready forces, carrier battle groups, Marine ARG/MEUS, the newly flagged 172d Infantry Brigade, the crisis response force that would come from Alaska for airborne response, and with our Air Force squadrons.

This crisis response has been demonstrated most recently in the last couple years with response to the China-Taiwan missile crisis, and then also the political infighting that occurred in Cambodia about 7 to 9 months ago, where we responded with special operations forces.

The third part of our strategy, of course, is the ability to fight and win a major conflict, and what we have done for 45-plus years of being with our Republic of Korea allies in Korea, has averted a war in Korea, and also created conditions in which that situation can be resolved.

FIVE KEY ISSUES

So with that strategy, I would like to briefly mention the five things that have priority for us, and they're on our plate right now.

They are the preservation of the security relationship with Japan, building the foundations for a mil-to-mil relationship with China, and I'll talk about these a little more in a moment, creating the conditions for a noncataclysmic resolution or reconciliation in Korea, building a mil-to-mil relationship with India, and then also reacting to the East Asian economic crisis and the impact of that on the nations in the region, and then I would like to go into a little bit more detail on those factors.

First, as we talk a lot about China we must not forget that our pivotal and key security relationship in the Pacific region is that which we have with Japan. Japan is working on the defense guidelines, which will allow for their future security role in Asia, and help to define that.

Secretary Albright, when she was in Japan last week, signed an acquisition and cross-servicing agreement, which allows for us to

use Japanese facilities as we work on the defense of Japan and other things in the region.

We are concerned with Okinawa, of course, and the host nation support, in which Japan has provided \$4.53 billion of support for United States troops and their stay in Japan. Together with Ambassador Foley, who is doing such a great job there, we are working this relationship very hard and keeping it a high priority.

Second on our plate is building the mil-to-mil relationship with China, the foundations of that relationship, and it is a part of the overall relationship our Nation has with China.

Militarily, we have come a long way from 2 years ago when our communications were close to zero. We are working on building a level of understanding with the PLA and the Chinese people, on what the United States and our Pacific forces are doing militarily.

President Jiang Zemin, when he was in Honolulu, talked about the importance of gaining understanding as a precursor to building trust between our nations, and that is what we are working on.

The issue of China and Taiwan is very important. I think the Chinese PLA leadership understands that Taiwan is—well, we understand it as a core sovereignty issue to China, and they also understand that the United States is committed to a peaceful resolution of the China-Taiwan issues.

We are understanding also of the critical nature of 1.32 billion people and what that means to China for economic modernization, for food, clothing, shelter, energy, and jobs. With that number of people it is a daunting governance challenge, as people involved in governing our Nation will understand, of creating that for those many people.

So economic modernization transcends military modernization for the Chinese. But we deal with them from a position of military strength, and we deal with them from a position of respect for their interests as well as our interests in the region. As I say, we are working on the foundations, this is a long-haul relationship we are in with the PLA and with the Government of China.

Korea, the third item, we are foremost trying to create the conditions for a peaceful reconciliation to occur in Korea. The new Kim Dae Jung government is making great strides at communications between the Republic of Korea and the DPRK in North Korea. General Tilelli there is doing a great job with our forces.

It is the only nation in the world where we have a four-star officer assigned to represent a single nation, represent us with a single nation, and our solid relationship that we work with the Republic of Korea armed forces needs to see reconciliation through to a finish. It is on the horizon, but we need to follow through on that.

India, we're working a burgeoning military-to-military relationship with India, the second largest country in the world, and the largest democracy in the world, and this is a challenge, because they had been aligned with the Soviet Union during the cold war, and have been largely inward looking.

It is important for us to recognize that though we usually talk about India-Pakistan, the Indians look to China as their main security challenge, and they also look east to Asia for their economic growth.

The last item then that we are looking at day to day for this next year is the East Asian economic crisis and the impact that has had. It is important for us to realize that this economic crisis is, in fact, a security crisis, because they are tied to closely together.

Our military role, our U.S. military role with the other militaries of the other regions, is to create time and space to allow for a solution for this economic crisis to occur. So we are adjusting the size, the shaping, and the timing of the events we do with the other nations to accommodate this crisis.

It is important for the Asian nations and for the East Asian nations to see that the United States is with them and is working with them in both good times and bad, as Secretary Cohen has mentioned.

The economic crisis hit hardest South Korea, Thailand, and Indonesia. South Korea is dealing with this, along with the IMF, as is Thailand, in a very constructive way. I would like to address a couple of comments more specifically to Indonesia, which is having a very—that nation is having a very hard time right now.

Indonesia, as we have talked about before the committee before, has over 17,000 islands, 6,000 of which are occupied. It is the fourth largest nation, in terms of population, in the world, 208 million people, and has the largest Moslem population of any nation in the world.

In addition to having a geo-strategic location along the Strait of Malacca, through which about 400 ships a week pass to go up to North Asia, it is a nation that is the linchpin of ASEAN and the Southeast Asian nations, because of its size, and because of its influence there, and, therefore, it is very important to the United States.

They are currently challenged both politically and economically, and also this presents a real challenge for the military in Indonesia, for ABRI. The student unrest, the drought, the dramatic decline of the rupiah, have given a lot of turbulence in Indonesia. This puts the ABRI in a sensitive and very challenging position.

We talk regularly with Ambassador Roy there, with the country team. I talked Thursday, before we came, Thursday of last week, with General Wiranto, who is the head of ABRI, and he recognizes the sensitivity and the challenge of his position, and trying to react moderately to the turbulence, and react in a responsible way.

I am convinced that they are working very hard to act in a responsible way, but it is a challenge, and my opinion is that contact with Indonesia versus isolation is the key to trying to help them through this crisis.

PACIFIC COMMAND READINESS

I would like to shift gears now to talk briefly about readiness, because that is something that is very much on everyone's mind, and from a CINC's point of view, I would like to say a few words about it.

Foremost, from a commander in chief, of one of our regions in the world, what we need to have fundamentally is the right forces, at the right time, in the right place, to fight the right fight. So that's the fundamentals of it.

What capabilities do we have to do this? There are seven. First is combat-capable equipment. Second are qualified people. Third is adequate maintenance and logistics support for this equipment. The fourth is training. The fifth are tactics to capitalize on the training and the people. The sixth is the ability to move forces to the right place, and the ability to command them. Then the seventh is the infrastructure to support these forces.

We look at these seven items on three different levels. One is the tactical level or the unit level. The second is aggregated to a battle group level or an expeditionary force level. The third is the strategic level.

So this accounts for a lot of the items that a unit will be having tactical problems, the tank will not fire, the ship will not shoot, or something like that, and yet, that can be accommodated at the strategic level, and still have the overall forces be satisfactory.

The bottom line of all of this is that when we look at the Pacific forces, overall we are ready, our forces are adequate. We have some shortfalls, which we have documented in the written statement for the record, which increase the time and the risk of responding to crises. Our forward deployed forces, the readiness is very good. As we look at the forces that are back in the United States that are the rotational forces, their readiness has declined, and we are looking—if you think of a bucket, that there is a bucket in the curve for the rotational forces, that bucket is deeper.

We have used the parts, we have used the people, and we have used some of those assets, and so that bucket is, in fact, a deeper bucket, as we get ready to deploy the forces.

It is becoming more challenging to deploy forces ready, but our forward deployed forces are currently ready. I can talk about that more in questions and answers, if there are questions about it.

Senator STEVENS. Could I interrupt you?

Admiral PRUEHER. Yes, sir.

Senator STEVENS. We are just back from the Persian Gulf, and we found that the Air Force and the Army, and even the army from Bosnia, when they returned from a deployment, they are sent to sort of retraining area so they can restore their combat skills.

Admiral PRUEHER. Yes, sir.

Senator STEVENS. Do your people, when they are in a stationary type of deployment, like off Iraq, for a fairly long period, do they have to come back and go through retraining, too? Are you saying that you have the same problem they do?

Admiral PRUEHER. That problem exists for the forces that deploy from the Pacific, also. The real difference is between the traditional rotational forces of—the Marine Corps and the Navy have deployed on rotations for a long time, and so that is a normal circumstance for the Navy and Marine forces, they come—

Senator STEVENS. Normally, do they go through retraining?

Admiral PRUEHER. Yes, sir, they do.

Senator STEVENS. So there is no added training necessary when they come back from like the gulf deployment.

Admiral PRUEHER. The rotational forces normally, when they come back, they go to a lower readiness level, and then that readiness level comes back up as they reach another scheduled deployment.

The forces that deploy out of phase are the ones that—primarily they would be the Army and the Air Force units that come there, they come, their readiness declines, because they're not getting the training while they're deployed, their readiness would decline, and then they'd come back and have to retrain to get back up to a higher level of—

Senator STEVENS. We discussed that with them, but I'm talking about your forces now. One of the things that the Air Force pilots complained about is that if they're in Kuwait they can't go outside the cleared air space, if they're in Saudi—

Admiral PRUEHER. That's correct.

Senator STEVENS [continuing]. They very seldom go outside—but in any event, they do not have ranges, and they do not have the same type of training they would get if they were in the United States or even in Korea.

Are you limited in your training opportunities when deployed, as compared to other deployments in the gulf region?

Admiral PRUEHER. The answer is yes, sir, we do. The air units that deploy from Kadena are forward deployed PACAF forces that were deployed from Kadena, they would—

Senator STEVENS. I'm talking about Navy now, not—

Admiral PRUEHER. OK.

Senator STEVENS. We have the PACAF—

Admiral PRUEHER. I'm thinking joint, and you're thinking Navy, sir. OK.

Senator STEVENS. Well, the joint we ran into, there's no question about it—

Admiral PRUEHER. The naval force is the—the Indy carrier battle group that is out there, and the Marine—the amphibious ready group [ARG] and the Marine expeditionary unit [MEU], when they are out there and on station, they have the same issues which you are discussing.

Senator STEVENS. Right now you have two carrier groups out there, right?

Admiral PRUEHER. Yes, sir; one from our AOR, and one from the European AOR. Yes, sir.

Senator STEVENS. Admiral, I have to interrupt you. Do you have any questions on that question? OK. I'm sorry, sir. We'll come back, if you will just give us a—

Admiral PRUEHER. Yes, sir.

Senator STEVENS [continuing]. Recess here.

[A brief recess was taken.]

Senator STEVENS. My apologies, Admiral. I'm not sure you had finished your statement, sir.

Admiral PRUEHER. I had a little bit more. I would like to take one more shot on the readiness degradation while deployed.

Senator STEVENS. All right.

Admiral PRUEHER. For naval forces, the Navy and Marine Corps, which do rotational deployments, it is part of the plan that when they return from a deployment that the readiness would degrade prior to the increase in readiness, prior to the next deployment.

For the Army and the Air Force forces, which do not normally do just regular rotations, but the description that you saw in

Southwest Asia is one that happens irrespective from where they deploy, that occurs, and that happens with our forces, too.

For rotational forces, that is a planned decrease in readiness, and for the others that are globally sourced, the readiness will degrade if they do not have training opportunities, which is the case in Southwest Asia, while they are deployed that readiness will degrade and then they will have to bring that up when they return.

Senator, I have a couple of stray shots of things that I hope will perhaps precipitate some questions and answers, and these are miscellaneous things that, in lieu of talking here, this morning there are just a couple of things; one is the strategic importance of Guam, which we support; another is the Ford Island Development Authority, which allows for increased housing and quality of life in the Honolulu area, which we support.

The base realignment and closure, which Secretary Cohen has pushed so hard, is something that I realize there are a lot of factors, that we need to do in order to capitalize, so that we can try to recover some funds for modernization and readiness. The other is the U.N. Convention on Law of the Sea ratification, which we support, and the congressional delegation visits to the AOR, which are so important.

I recognize because of the role of the Congress in our Nation's Government how important these are for congressional delegations to go to the regions, just as you all have been to Southwest Asia, and to Bosnia, and to NATO, there is no substitute for seeing things firsthand, and it is very important, though the distances are for delegations to come to the Pacific region and to the Asia Pacific region to see firsthand what is going on out there, so that they can see with their own eyes, and we would really support that, sir.

Thank you very much for the opportunity to be present. Again, in the military world we are paid to be pessimists, I am optimistic about the future of the Asia Pacific region, though, and our work in it.

PREPARED STATEMENT

It is important for all of us in the political, economic, and the military part to work in a very forehanded way and preventive way to avert crises, and to pick the important issues, and last, I thank both of you and the members of the committee for the professional and the personal support to our U.S. military. Thank you, sir. I am ready for your questions.

[The statement follows:]

PREPARED STATEMENT OF ADM. JOSEPH W. PRUEHER

Mr. Chairman and members of this Committee, on behalf of the men and women of the United States Pacific Command, thank you for this opportunity to present my perspective on security in the Asia-Pacific region.

EXECUTIVE SUMMARY

Financial crisis.—As this Committee is fully aware, Asia is in the midst of a serious financial crisis. Some might even say it is a broader economic crisis. It is important that this financial crisis also be understood in security terms. We have seen early signs of instability in Indonesia and have concerns about the situation in other countries as well. As President Clinton said in his State of the Union address, a secure, stable Asia is in America's interest. Our military presence and our military-

to-military contacts throughout the region undergird overall security and stability in the region.

Security alliance with Japan.—Our alliance with Japan continues to be the most important U.S. security relationship in the region. The signing of the revised Guidelines for U.S.-Japan Defense Cooperation in 1997 enhances this relationship. Japanese host-nation support for U.S. forces is a critical part of U.S. military presence in Asia and meets Congressional goals for burden-sharing.

China.—China's growing economic and military power is a major issue for regional leaders. The past year brought improvements in U.S.-China relations. Carrying out the policies of the Secretary of Defense and, in conjunction with the Chairman of the Joint Chiefs of Staff, U.S. Pacific Command worked successfully to improve our military-to-military relationship with the People's Liberation Army. Our goal is to lay a foundation for a relationship based on mutual understanding, trust, and increased openness. Along with the U.S., China will play an enormous role in determining if the next century is one of conflict or cooperation. On the subject of Taiwan, we recognize from China's perspective this is a core sovereignty issue, while China recognizes that the United States is committed to the peaceful resolution of Taiwan issues. I am personally optimistic for the growth of the U.S.-China relationship; however, we must continue to deal with China from a position of strength, combined with respect, and not have unrealistic expectations. This is a long-haul process.

Korean peninsula.—The Korean peninsula remains a volatile flashpoint. U.S. and South Korean troops would be in harm's way in the first hour of a conflict but are key to rapid conflict resolution. Our 37,000 troops stationed on the Peninsula and our alliance with the Republic of Korea have deterred North Korea from offensive action for 45 years. U.S. forces on the Peninsula, coupled with our reinforcement capabilities and ROK forces, are adequate for this task. The goal is eventually to facilitate a non-cataclysmic end to this situation. We must stay the course of deterring conflict, providing food aid, engaging in four-party talks, and supporting the Korean Peninsula Energy Development Organization, particularly in light of North Korea's continued economic deterioration.

Readiness and OPTEMPO.—U.S. Pacific Command's forward-deployed forces are ready to execute assigned missions, but significant deficiencies exist under a "two major theater wars" scenario. In 1997, U.S. Pacific Command Navy, Air Force, Army, and Marine Corps components all reported shortages of personnel in some units. Although components have overcome these problems in the short term, readiness for deployed forces is increasingly achieved at the expense of non-deployed forces. Currently, some forces required for long-term commitments in the Asia-Pacific area of responsibility are positioned in the Persian Gulf. Any reduction in personnel, equipment, or funding would significantly erode our capabilities in the Pacific. With some minor exceptions, we have been able to manage the operational tempo (OPTEMPO) for forces under U.S. Pacific Command, because we are accountable for and can trade off between training and operations. There are no firm indicators that the forces are "wearing out."

1997 IN THE ASIA-PACIFIC REGION

Five developments stand out for their impact on U.S. security interests in Asia in 1997:

- The Asian financial crisis was the most significant development this past year. It began in July with the sharp decline of the Thai baht. The currencies of other nations followed suit shortly thereafter. Serious debt servicing problems in several Southeast Asian nations and South Korea brought on economic uncertainty and concern about potential instability.
- The food crisis in North Korea reached new levels and continued to draw international attention, resulting in unprecedented interventions by non-governmental organizations. The aid that North Korea received did not address the underlying causes of the food shortage. The crisis will likely occur again in 1998 and in the years ahead and increases the potential for future instability on the Peninsula.
- Factional fighting erupted in Cambodia in July 1997, reversing earlier democratic trends. The Association of Southeast Asian Nations (ASEAN) postponed indefinitely Cambodia's entry into ASEAN and is trying to conduct negotiations to resolve the situation. The outcome remains uncertain.
- In September, the United States and Japan agreed to a complete revision of the Cold War-era Defense Guidelines. The revised agreement builds upon our existing security relationship and includes enhancements in bilateral planning and

Japan's rear area support. The revised Guidelines significantly improve our ability to meet regional security challenges.

—At the October summit in Washington, DC, China and the United States committed to forging a “constructive strategic partnership.” On the military side, DOD concluded a Military Maritime Consultative Agreement, our first bilateral military agreement with China.

U.S. PACIFIC COMMAND STRATEGY IN ACTION

Theater Strategy

In support of the President's National Security Strategy, Pacific Command is striving to achieve a stable, prosperous, and democratic Asia-Pacific community in which the United States is a player, partner, and beneficiary.

Our military strategy derives from two fundamental premises. The first is a notion of confluence, that the political, economic and military aspects of security are interdependent, and cannot be advanced separately. Second, security, especially military security, undergirds the stable conditions that are prerequisite for economic growth and prosperity.

U.S. Pacific Command's strategy consists of three levels of activities and operations: Peacetime engagement; crisis response; and fight and win a major regional conflict.

If we are engaged in the region in peacetime and our actions backed by credible, combat-ready forces, our strategy is able to respond to crises, prevent wars, and enhance stability.

In 1997, this strategy meant that U.S. Pacific Command forces were extensively involved in sustaining the military component of American engagement in Asia, as part of the Administration's overall engagement program in Asia.

In spite of Asia's current economic difficulties, the investments our nation is making in Asia's security and stability have yielded tangible benefits to the United States.

Responses to Asia's Financial Crisis

East Asia's serious financial crisis has implications for security and stability in the region. The near-term security impact will include slowdowns in the modernization of Southeast Asian militaries, reductions and cancellations in scope of some training exercises, possible reductions in funding of the Korean Peninsula Energy Development Organization, and pressure to reduce host nation support.

Beyond these immediate effects, we are watchful for early signs of instability including civil disturbances, labor disputes, increased ethnic rivalries, and some increase in anti-American rhetoric.

The U.S. government is responding to the financial crisis in a number of ways. U.S. Pacific Command is taking steps to maintain the visibility of American military presence and contacts with our military counterparts, especially in Southeast Asia. We have realigned our engagement programs and are directing resources to the maximum extent to lower-cost, higher-impact activities.

Security Alliance with Japan

Japan remains our foremost security partnership in Asia. With the support of the Hashimoto government, we have made great strides to bolster this relationship over the past year.

The new Defense Guidelines signed in September strengthened our alliance and enabled the U.S. and Japan to engage in bilateral planning for crises in areas surrounding Japan. The new Guidelines agreement is essential to maintenance of peace and security in the region.

Japan continues to host about 54,000 U.S. military personnel. In spite of the fiscal constraints of a slowing economy and a reduced defense budget, Japan's generous host nation support continues to meet Congressional goals for burden-sharing. Funding reductions in Japan's voluntary Facilities Improvement Program have had some impact; however, the impact has been minimal as construction projects have been carefully prioritized through close coordination of U.S. Forces Japan and the Government of Japan. At the bottom line, the Government of Japan continues to provide exceptional facilities and support for U.S. military personnel and their dependents.

U.S. Pacific Command continues to work closely with the Government of Japan in implementing the Special Action Committee on Okinawa (SACO) Final Report and minimizing the impact of U.S. military presence on the people of Okinawa. While we have made significant progress in most areas, the return of Marine Corps Air Station Futenma is a difficult and exceptionally complex challenge. We remain

flexible as to the type of replacement facility, as long as it maintains the critical military functions and capabilities of Futenma.

Military-to-Military Relations with China

China's regional and global influence will likely grow as its economy grows and the People's Liberation Army (PLA) fields a more modern force. Owing to its non-convertible currency, China has been largely insulated thus far from the direct effects of the region's financial crisis. Although China's growing power is high on the list of concerns of regional leaders, China is not a direct threat to the United States today. The PLA can project military power only to a limited extent beyond China's borders but has the potential to attain a regional power projection capability in the period beyond 2015—and then only with many correct decisions and full funding.

The tension between China and Taiwan has lessened in the past two years. From China's perspective Taiwan is a core sovereignty issue. The U.S. is committed to "one China" as defined in the three joint communiques. On the other hand, China recognizes that the United States is also committed to the peaceful resolution of Taiwan issues. It is in no one's interest to bring the issue back to crisis levels.

It is important to further develop the U.S.-China relationship in a realistic way. China has an important role in peaceful resolution of regional issues including not only Taiwan, but also the South China Sea and the Korean Peninsula. Proper, balanced management of U.S.-China-Japan relations will be key to regional peace and security. We need to continue to encourage steps in the evolution of bilateral and multilateral relations, together with dialogue and mechanisms to address the issues effectively.

Conducted in conjunction with OSD efforts, U.S. Pacific Command's military-to-military contacts with the PLA are an important part of overall U.S. engagement with China. Contacts in 1997 included hosting visits by the Chief of PLA General Staff, General Fu Quanyou, and the Deputy Chief of PLA General Staff, Lieutenant General Wu Quanzu. The PLA hosted visits to China by the Commander-in-Chief, U.S. Pacific Command and the Commander-in-Chief, U.S. Pacific Fleet. The U.S. Navy conducted a ship visit to Qingdao while the PLA Navy conducted its first-ever ship deployment to the United States. Although falling short of the level of openness we seek to establish, the PLA did show us a nuclear-powered submarine as well as the flight test center at Cangzhou. Pacific Command opportunities for dialogue with President Jiang Zemin and all senior PLA leadership have been excellent. Secretary of Defense Cohen included me also on his January 1998 trip to China in which we toured Beijing's air defense center and met with President Jiang Zemin.

U.S. Pacific Command's goals in building this relationship with the PLA are two-fold: to build understanding and trust, and to increase openness. Laying this foundation for the future enhances our understanding of China's military intentions and capabilities while giving us the opportunity to increase Chinese appreciation for U.S. forces stationed in the region. We are building this relationship from a position of both strength and mutual respect. It will take continuous work over a long haul. For this reason, it is important to include younger generations of officers in future military-to-military contacts to capitalize on long-term working relationships, a point on which the PLA leaders agree.

Deterrence on the Korean Peninsula

The Korean peninsula remains a volatile flashpoint where U.S. troops and citizens would be in harm's way on the first hour of a conflict.

The North Korean economy has continued to deteriorate. North Korea is now dependent on international aid to feed its people. The regime has agreed to engage in four-party talks aimed at formally ending the Korean War and appears to be honoring the terms of the Agreed Framework. This past year also yielded an agreement with North Korea to accelerate the recovery of unaccounted-for American servicemen from the Korean War.

Meanwhile, the Republic of Korea (ROK) is coping simultaneously with the Asia financial crisis and the transition to new political leadership. Kim Dae Jung, the new President, has already voiced support for U.S. military presence in Korea into the foreseeable future. Ensuring that ROK military preparedness is not seriously weakened by ROK economic difficulties is the next challenge. Despite the economic problems, the ROK has pledged to maintain host nation support at previously agreed-to levels. Secretary Cohen's recent visit moved this cause forward.

While we remain hopeful that four-party talks will reduce tensions on the peninsula, military prudence dictates maintaining U.S. forces in Korea and our security alliance with the ROK to deter any hostile moves by the North.

In my view, reconciliation is in everyone's best interest as a first step in the long-term process of resolving the situation on the peninsula. Economic, political, and

cultural differences built up during fifty years of separation and mistrust will not be overcome easily. The United States and China have key roles to play, but the two Koreas will ultimately determine the pace of the process.

Lastly, our forces in Korea require the continued use of anti-personnel landmines (APL's). APL's are critical in current plans to deter or halt an attack, to reduce casualties, and to reduce the risk of humanitarian disaster that would result from combat in and around Seoul. Until the situation on the peninsula is resolved or new technologies are developed, APL's should remain an integral part of U.S. forces on the peninsula as specified in the President's policy directive on this issue.

Joint Task Force Bevel Edge in Thailand

Thailand is an important treaty ally and security partner. Thailand is important both for its location in Southeast Asia and as a strategic bridge to the Persian Gulf. Thailand is one of the nations in Southeast Asia most affected by the financial crisis.

U.S. Pacific Command maintains close relations with the Thai military. This relationship yielded tangible benefits in July 1997 when fighting erupted between rival political factions in Cambodia. U.S. Pacific Command temporarily staged a small special operations force package, Joint Task Force Bevel Edge, in Thailand in preparation for a possible evacuation of American citizens from Cambodia. Approval for this deployment was simplified and expedited because of the strength of our working relationship with the Thai military. This is a good example of the yield from our engagement program.

Challenges in Indonesia

The United States has a special interest in a stable Indonesia. With the world's fourth largest population and a location astride shipping lanes linking Asia to the Arabian Gulf, Indonesia is strategically important. Events in Indonesia affect the rest of the region. Indonesia's importance to the United States is especially significant in light of China's growing power and Indonesia's key role in the Association of Southeast Asian Nations (ASEAN) and the ASEAN Regional Forum (ARF).

Indonesia has been hit especially hard by the financial crisis. The U.S. Government has urged the Indonesians to adhere to the economic reforms they have agreed to undertake with IMF. It remains uncertain whether Indonesia is willing to adhere to the prescriptive remedies required by the IMF in order to receive financial guarantees necessary to stabilize their economy. In the interim, public dissatisfaction and student demonstrations continue to grow over economic and political issues. These demonstrations have put great pressure upon the Indonesian Armed Forces (ABRI) to maintain order while at the same time showing restraint. My view is that ABRI leadership is trying hard to act in responsible ways.

1997 also brought drought and major forest fires to parts of Indonesia and Malaysia, leaving large swaths of Southeast Asia blanketed in smoke and haze, and giving rise to incidents of infectious disease. Deployment of Air National Guard C-130's from Wyoming to Indonesia to fight these fires made a significant contribution towards controlling the fires. Similarly, U.S. Navy medical personnel in Jakarta continue to work with Indonesian public health authorities to help control outbreaks of Dengue fever. Both have brought the United States an enormous amount of good will.

Engagement Dividends in Singapore

Singapore is another Southeast Asian nation with which the United States is comprehensively engaged. Singapore is a strong proponent of U.S. military presence in the region. Among the many ties that the Department of Defense and other U.S. government agencies maintain with Singapore, forces assigned to U.S. Pacific Command train regularly with Singapore's defense forces. I met with Singapore's senior defense officials on several occasions in 1997, further cementing the bilateral relationship.

American military engagement with Singapore paid off in January 1998 when Singapore announced its intention to give the U.S. Navy access to the pier being built at Changi Naval Base. This pier will accommodate our Navy's largest aircraft carriers. Access to this pier will help sustain American military presence in the region.

A New Visiting Forces Agreement with the Philippines

The Republic of the Philippines is a treaty partner and occupies a geographically important position in the region. The recently negotiated Visiting Forces Agreement (VFA) is critical to continued engagement with the Philippine armed forces. We anticipate the Philippine Senate will ratify the agreement later this year.

Notwithstanding current limitations, we strive to maintain contacts with the Philippine military. An example of this is the Philippine Army joining U.S. Army Pacific in co-hosting the annual Pacific Armies Management Seminar (PAMS) in Manila in March 1998. Forty-one countries attended, including China, Vietnam, and India.

Defense Cooperation with Australia

Australia remains a staunch ally, friend, and vocal supporter of U.S. presence in Asia. Pacific Command has an excellent military-to-military relationship with the Australian defense establishment. Australia is modernizing and reducing her forces, implemented defense efficiencies, and remains dedicated to maintaining interoperability with U.S. forces.

Modest Contacts with India

India is an emerging regional power with great potential in the coming century. India has been successful in liberalizing its economy over the last five years and has begun to expand ties with East and Southeast Asia.

Though frequently overlooked because of our tendency to focus on the India-Pakistan situation, India also looks towards China as a principal security concern for the future. These concerns have been made clear during recent security discussions with Indian officials. For now, however, India and the Indian military are focused inwardly. U.S. Pacific Command maintains modest levels of contact with the Indian military.

Cooperation on the "Full Accounting" Mission

Cooperation from Vietnam, Laos, and Cambodia in support of Joint Task Force Full Accounting's mission continues to be good. Indeed, the increased contact brought about by the Prisoner of War/Missing in Action (POW/MIA) issue has helped pave the way for further engagement with Vietnam and Laos.

LOOKING AHEAD

I would like to highlight several policy issues affecting the future of security and stability in the Asia-Pacific.

First, despite Asia's economic turmoil, the fundamentals of U.S. security policy remain sound. U.S. economic, diplomatic, and security interests overlap and require an integrated approach to policy in the region. Stable conditions resulting from security will be the foundation upon which Asia's economic recovery will be built.

Second, U.S. forward-deployed forces in Asia remain the linchpin of regional security and stability. U.S. Pacific Command participated extensively in the Quadrennial Defense Review, which reaffirmed the importance of maintaining about 100,000 military personnel in Asia. The United States should continue to maintain about 100,000 personnel—but more importantly, the capabilities that this number represents—forward deployed. This number is a gauge by which nations in Asia measure U.S. commitment.

Third, it is important that the Department of Defense continue to build its military-to-military relationship with China. This relationship provides a means of dialogue between our nations and gives U.S. military leaders insights not otherwise available.

Fourth, on the Korean peninsula, the aim is to bring about a non-cataclysmic resolution. Neither a lashout nor a total collapse of the North is in U.S. or ROK interests; either would negatively affect security and stability on the Peninsula and in the region. Food aid and four party-talks are two ways to engage North Korea to achieve the peaceful end-state we are after. At the same time, we must encourage the ROK to maintain current levels of military preparedness and host nation support at agreed-upon levels.

Fifth, as the nations of Southeast Asia struggle through the current financial crisis, it is manifestly in U.S. strategic interests to remain engaged with them. Assuring them of U.S. interest in Southeast Asia's security and stability ultimately serves long-term U.S. economic, diplomatic and security interests. From a military perspective, International Military Education and Training (IMET)—especially for Indonesia, Thailand, Malaysia, and the Philippines—is one of our nation's most important means of influencing future leaders. I appreciate the dilemmas at stake in this issue, but, especially in light of Asia's current financial crisis, restricting IMET limits our ability to achieve our nation's goals—a secure, prosperous, and democratic Asia-Pacific region.

Sixth, I would like to highlight the strategic importance of Guam. Guam was and is a strategic bridge supporting the deployment of forces to the Persian Gulf for military operations against Iraq and would be essential to combat operations on the Korean peninsula. As this Committee decides how much military infrastructure our

nation must maintain, it is important that Guam be understood as a vital bridge linking CONUS-based forces and U.S. strategic interests in Asia.

Seventh, an increase in Congressional delegations hosted by U.S. Pacific Command on their way to and from Asia was a welcome trend in 1997, an indication that Congress recognizes the region is important to the United States. I urge members of Congress to visit Asia and see for themselves the range of economic, diplomatic, and security interests the United States has in the region. My Asian counterparts and their civilian bosses share this view.

Eighth, we urge your support for ratification of the U.N. Convention on Law of the Sea. Maintaining freedom of navigation is critical to regional security and economic development. Some Asia-Pacific nations assert excessive maritime claims that challenge this freedom. Participation in the Law of the Sea Convention will allow us to participate in negotiations to resolve these claims, add credibility to our stated policies and interpretations, and preserve navigation rights vital to executing our missions.

Ninth, I urge your support for the Overseas Humanitarian Disaster and Civic Aid (OHDACA) program, which promotes our engagement strategies and disaster response. Last year these funds helped to underwrite costs of providing care to Iraqi Kurdish refugees on Guam, to fight fires in Indonesia, to conduct demining training in Southeast Asia, and to respond to disasters in Vietnam and China. This well-leveraged program provides important flexibility in crisis response.

Finally, a comment on "prudent risk." In the ideal world, CINC's would both be all wise and would have enough resources to deal with every conceivable contingency that might arise. Of course, we don't live in that ideal world and our nation's resources are not that large, but they are mostly sufficient. Although the world is not free of danger and conflict, there is evidence of a "strategic pause" following the end of the Cold War. In this environment, CINC's must be willing to weigh their instincts to avoid risk against the associated costs and accept some prudent level of risk. The nation and our national leaders must also accept "prudent risk."

RESOURCING THE STRATEGY

Our nation's security strategy in the Asia-Pacific region yielded tangible results in the past year. The coordinated efforts of many people throughout the Department of Defense and other U.S. government agencies made this strategy effective. Due to the economic turmoil in the region, it is essential that we sustain this strategy of preventive defense in the year ahead.

Trained and equipped combat-ready forces make the strategy credible. Adequate resources are essential to sustaining these forces and the effectiveness of the strategy.

Force Disposition Today

The forces assigned to U.S. Pacific Command are adequate to execute assigned missions today and are arrayed in two major zones spanning the Pacific and Indian Oceans:

- Approximately 100,000 personnel are forward-deployed in Asia, principally in Japan, Korea, Guam, and Diego Garcia. These forces include the 7th Fleet, 8th U.S. Army, III Marine Expeditionary Force, 5th Air Force, 7th Air Force, 13th Air Force, the 1st Battalion of the 1st Special Forces Group (Airborne) and other joint special operations forces, maritime pre-positioned ships, and Army and Air Force prepositioned stocks.
- Approximately 200,000 personnel are stationed in Hawaii, Alaska, and the West Coast of the United States. These forces include the 25th Infantry Division, 3rd Fleet, I Marine Expeditionary Force, 1st Brigade of the 6th Infantry Division, 11th Air Force, I Corps Headquarters, and designated units and individuals of the Army, Air Force, Navy, and Marine Corps Reserve, and Army and Air National Guard.

Readiness and OPTEMPO

Although U.S. forces deployed in the Pacific are ready to conduct assigned missions, I would like to bring some readiness issues to the Committee's attention.

U.S. Pacific Command has reported significant deficiencies in six of the eight measured functional areas for a "two major theater wars" scenario: (1) command, control, communications, and computer systems; (2) logistics and sustainment; (3) intelligence, surveillance, and reconnaissance; (4) mobility; (5) infrastructure; and (6) special operations. We have addressed specific deficiencies in these areas through the Joint Requirements Oversight Council and the Senior Readiness Oversight Council. Although the Department has shifted considerable funds into readiness accounts, further investment will be required to overcome these deficiencies.

From the perspective of the U.S. Pacific Command Army, Navy, Air Force, and Marine Corps components, personnel shortages are the principal readiness concern, though pockets of lower levels of readiness exist due to equipment shortage and availability.

- U.S. Pacific Fleet reported that personnel shortages have affected forward-deployed naval force readiness. Though command attention has caused recent improvements, in the near term (May 1998), 93 of 839 Chief Petty Officer billets will be “gapped.” Pacific Fleet is currently short over 1,900 sailors in key technical ratings. In addition, there are backlogs in aircraft engines and aircraft intermediate and depot level maintenance, particularly for the S-3B.
- U.S. Pacific Air Forces (PACAF) reported an Air Force-wide decline in pilot retention, a serious manning problem which cannot be corrected in the near term. PACAF aircraft maintenance statistics indicate the beginning of a decline in aircraft mission capable rates. The PACAF F-16 cannibalization rate is 12.8 percent, compared to 6.6 percent in fiscal year 1995, due to lack of spare parts.
- U.S. Army Pacific (ARPAC) reported shortfalls in infantrymen and “low-density/high-demand” specialties such as engineers, communications specialists, intelligence analysts, and mechanics, though these shortfalls will be corrected by the end of the fiscal year. Slower modernization of some lower-profile equipment, such as 2½-ton trucks, is causing increased maintenance difficulties, though this will be corrected in fiscal year 1999 with the delivery of new vehicles.
- U.S. Marine Forces Pacific (MARFORPAC) reported shortages of personnel in each major reporting unit, primarily in communications, intelligence, air traffic control, air support, infantry, landing support specialists, and vehicle mechanics.

Although components have mitigated the impact of these problems in the short term, readiness for deployed forces is being achieved at the expense of non-deployed forces.

Maintaining adequate readiness requires predictable funding and investments both to bolster deficient areas and operate to meet our commitments. In the near term, timely passage of supplemental appropriations for unfunded contingency requirements, such as in Bosnia and the Arabian Gulf, is critical to sustain readiness. Without this relief, OSD has decided that Services will have to absorb costs from operations and maintenance accounts to the detriment of readiness.

OPTEMPO has not been a major problem in U.S. Pacific Command. With minor exceptions, U.S. Pacific Command's components are staying within OPTEMPO goals established by service headquarters. Units that have exceeded or are forecasted to exceed goals include two MARFORPAC infantry battalions and a Marine F-18 squadron, PACAF's F-15E squadron and one F-16C squadron, and two ARPAC battalions. There are no firm indications that the force is “wearing out.” However, people are working hard and there is no sign of let-up in the workload.

Improvements to Warfighting Capability

U.S. Pacific Command's resource priorities were submitted to the Joint Requirements Oversight Council earlier this fiscal year. We have given the highest priority to the readiness of personnel and equipment; second, to near-term force improvements and upgrades to existing systems; third, to joint, multi-service, and multi-national systems which enhance warfighting capability and interoperability with our friends and allies; and fourth, to new, long-term recapitalization.

I would like to highlight two new capabilities that are important to U.S. Pacific Command's long-term warfighting capabilities.

- Theater missile defense.*—With North Korea developing long-range ballistic missiles, the differences between theater missile defense and national missile defense are blurring. Nations such as China and India are actively developing new ballistic missiles. There is a need to keep Pacific geographic and geopolitical considerations in mind as we develop missile defenses.
- Chemical and biological defenses.*—North Korea is assessed to have the capability to manufacture, deploy, and employ chemical and possibly biological weapons. It is prudent to assume that North Korea would use chemical weapons in any conflict on the Korean peninsula. In conjunction with U.S. Forces Korea, U.S. Pacific Command has generated a list of near-term fixes to close the gap in our capability to defend against chemical and biological attacks.

Quadrennial Defense Review and National Defense Panel

U.S. Pacific Command endorses the Quadrennial Defense Review modernization strategy, which attempts to balance near-term readiness and future capabilities. The command also supports the National Defense Panel's conclusion that breadth

of capability will be as important as depth for long-term readiness and modernization and that reductions in infrastructure are necessary to help fund modernization.

Investments in People

Investments in people and training are as important as new technologies. Adequate funding for compensation, medical, retirement, housing and other quality-of-life programs is necessary to attract and retain the skilled personnel upon which our forces depend.

Readiness to respond rapidly in support of military contingency operations should be the principal guide as the military health system is reformed.

Training and force protection are quality-of-life concerns as well as readiness issues. U.S. Pacific Command has developed plans of action to reduce vulnerability to terrorism and is steadily working requirements through the Services.

Service military construction plans provide appropriately for warfighting infrastructure and improvements to quality-of-life.

Asia-Pacific Center for Security Studies

The Asia-Pacific Center for Security Studies (APCSS) is rapidly becoming a key part of U.S. Pacific Command's engagement strategy. In January 1998, APCSS hosted a timely conference on economics and security in Asia, bringing together experts from business, academia, and the U.S. military to discuss the origins of Asia's financial crisis and the implications for security and stability. Similar conferences have examined peacekeeping, humanitarian support, and environmental issues.

The conference program complements the Center's primary academic organization—the College of Security Studies—that draws together future military and civilian leaders from around the region to explore national perspectives on regional security issues. The Asia-Pacific Center is an excellent investment in regional security.

New Headquarters

A new headquarters building for U.S. Pacific Command staff is required. The headquarters facility the staff is in today is a 45-year old hospital building that has deteriorated beyond the point of maintainability. The engineering estimate is for \$75 million for repair alone. To meet the demands of 21st century operations this command must have a modern, efficient facility, one that our taxpayers can be proud of, and one they can afford. Funding is in the FYDP for this headquarters building.

CONCLUSION

Last year I concluded that while not conflict-free, the Asia-Pacific region was at peace. This year the region is closer to the margins of general peace. The financial crisis could lead to broader economic and security problems.

As military professionals, we are paid to be pessimists and expected to keep our powder dry. However, this charter does not keep us from being optimists about the future of the Asia-Pacific region. I am convinced that by working in a forehanded way and respecting legitimate views, and by maintaining a position of strength, we can best contribute to peace, stability, and prosperity.

The continued support of Congress and the American people in these endeavors is vital and appreciated. With your support and the cooperation of our friends and allies, the United States will continue to successfully advance our national interests in the Asia-Pacific region.

ANNEXES

ANNEX A. JOINT TASK FORCE FULL ACCOUNTING

Joint Task Force Full Accounting's (JTF-FA) mission is to achieve the fullest possible accounting of Americans still unaccounted for as a result of the conflict in Southeast Asia. During 1997, JTF-FA completed 250 field investigations and 48 excavations, and repatriated 31 sets of remains associated with unaccounted-for Americans. In 1998 to date, there have been over 21 remains repatriations.

During fiscal year 1998, JTF-FA will conduct eleven Joint Field Activities (JFA's), five each in Vietnam and Laos, and one in Cambodia, to investigate, excavate, and recover remains, forensic evidence, or other information on unaccounted-for individuals. These field activities usually last about 30 days and involve as many as 100 U.S. personnel in Vietnam and 40 U.S. personnel in Laos. In Cambodia, the number of U.S. personnel varies depending on the mission.

While JTF-FA funding lines run out this fiscal year, the task does not. Funding for JFA's is needed throughout the FYDP. In particular, an additional \$5.54 million

is required in fiscal year 1999 to complete all ten scheduled JFA's. The Department of the Navy has this issue as a high priority for funding.

As of the beginning of fiscal year 1998, the number of unaccounted-for individuals JTF-FA is investigating stood at 364—275 in Vietnam and 89 in Laos. These numbers may change if scheduled field activities turn up additional information. There are 143 excavations or recovery operations to complete; these may yield information on up to 278 unaccounted-for individuals—94 in Vietnam, 170 in Laos, and 14 in Cambodia.

Cooperation from host nations continues to be good. Laos and Vietnam completed two very successful periods of unilateral investigations between August 1997 and January 1998. The Laotian government recovered remains possibly associated with an unaccounted-for American during one of these unilateral investigations. Vietnam continues to cooperate on the President's four key measures of progress: resolving discrepancy cases and live sightings, recovering and repatriating remains, implementing trilateral investigations with Laos, and providing POW/MIA documents.

Trilateral operations also continue to achieve good results. Vietnamese witnesses have provided outstanding assistance to JTF-FA in Laos and Cambodia. Lao cooperation with JTF-FA is improving and the Lao government recently agreed to provide oral history questionnaires to senior level officials to determine whether they may have any relevant information on the unaccounted-for personnel.

ANNEX B. U.S. PACIFIC COMMAND COUNTERDRUG EFFORTS

U.S. Pacific Command is committed to supporting the President's National Drug Control Strategy. U.S. Pacific Command's counterdrug efforts include: interdicting the flow of cocaine north from South America to Mexico's west coast, providing training to Thai and Malaysian counterdrug units, and providing helicopter support to Operation Wipeout, the U.S. Drug Enforcement Agency's marijuana eradication effort in Hawaii.

Eastern Pacific

Joint Interagency Task Force (JIATF) West, U.S. Pacific Command's sole counterdrug agent, targets shipments of cocaine moving north by sea from South America to the western coast of Mexico. Pacific Command forces seized 2.4 metric tons of cocaine during a fiscal year 1997 bust involving go-fast boats.

Currently, U.S. Pacific Command maintains an aperiodic ship presence in the Eastern Pacific. JIATF West analysis indicates an increased ship presence, with supporting maritime patrol aircraft, is needed to fully cover the cocaine arrival zones off the west coast of Mexico.

Southeast Asia

Thailand receives the bulk of U.S. Pacific Command's counterdrug support. JIATF West conducts eight BAKER TEPID exercises annually in Thailand. These exercises provide training to Thai counterdrug forces in small unit tactics, leadership, marksmanship, jungle navigation, and combat lifesaving. JIATF West also completed construction of the third and final counterdrug command center in southern Thailand, enabling Thai forces to more efficiently coordinate their counterdrug efforts. Additionally, JIATF West routinely deploys intelligence analysts to provide analytical support to the Drug Enforcement Agency (DEA) in Bangkok.

Although Malaysia has a robust counterdrug capability, it is acknowledged as a transit country for heroin destined for the United States. In August 1997, JIATF West conducted the first BAKER MINT counterdrug training exercise with Malaysia. U.S. Pacific Command forces provided valuable combat lifesaving training to Malaysian counterdrug personnel.

There is great potential for counterdrug cooperation with Vietnam. A counterdrug Letter of Agreement with Vietnam was negotiated in 1997 and is expected to be signed in 1998. The U.S. Country Team believes that Vietnamese support for an increased U.S. role in counterdrug operations is strong.

Operation Wipeout

U.S. Army Pacific provides helicopter support to Operation Wipeout, the Drug Enforcement Agency's marijuana eradication effort in Hawaii. To date in fiscal year 1998, U.S. Army Pacific has assisted in the eradication of over 22,000 marijuana plants.

ANNEX C. MILITARY CONSTRUCTION

Our top military construction requirements remain warfighting infrastructure and quality of life projects. Military construction and infrastructure are key components of Pacific Command's readiness. Much of the infrastructure is old and needs replacement—this is a necessary investment. The fiscal year 1999 U.S. Pacific Command Military Construction program contains 47 projects worth about \$550 million (Figure 1).

The Host Nation Funded Construction (HNFC) program is an excellent example of burden-sharing by Japan and Korea. The "Host Nation Support" line item in the fiscal year 1999 budget is specifically fenced for planning and design funds (P&D), which are the U.S. investment in this program—only 1.5 percent of the approximately \$1 billion spent by the host nations. The return on this investment is more than 60 to 1. The Army's role as the executive agent for construction in Japan and Korea is critical to provide quality facilities. The P&D funds which are in the Army budget are critical because the Governments of Japan and Korea do not pay for U.S. Government oversight which ensures the facilities meet U.S. operational requirements and quality and safety standards.

The majority of the P&D funds appropriated support the HNFC program in the Pacific. Cuts in the HNFC P&D funds jeopardized the U.S. government's ability to sustain its surveillance and design responsibilities in this vital program. The Army completed one-time cost savings measures that cannot be continued for a second year and still oversee the equivalent construction work of past years. It is imperative that sufficient Host Nation Support funds be provided (\$20.45 million in the Army budget and \$18.45 million for the Pacific theater). Not doing so risks allowing the Japanese and Korean governments to reduce their contribution because we will be unable to obligate all the funds they provide.

In addition to the construction provided by the Republic of Korea (ROK), Congress has funded essential facilities in Korea over the past 3 years. New barracks, dining facilities, and support facilities have made a significant difference to the soldiers and airmen stationed in Korea. We still need military construction dollars in excess of the \$113 million annual contribution by the ROK. We request your support for \$59 million in fiscal year 1999 for 6 barracks projects.

Throughout the Pacific we continue to correct the housing problem that our military families have endured for so long. The completion of replacement housing is encouraging to our Service members and families. This is a significant factor in the satisfaction and retention of our career personnel. Much of the construction budget for fiscal year 1999 is dedicated to improving the family housing and barracks in Alaska, Hawaii, Korea, and California.

Our en route infrastructure is reaching the end of its service life, particularly our aging Petroleum-Oil-Lubricants (POL) system. Many facilities that were constructed during the 1940–1950 time frame are in need of major repair or replacement. Real property maintenance accounts for essential facility repairs are "must pay" costs that continue to escalate. Readiness is degraded by hollow infrastructure when our facilities fall into disrepair, or when we shift funds to perform expensive incremental or emergency maintenance on those facilities.

FIGURE 1 TO ANNEX C.—*Fiscal year 1999 U.S. Pacific Command military construction and family housing*

	<i>Dollars in millions</i>
Warfighting Infrastructure:	
Consolidated Munitions Facility, Eielson AFB, AK	\$4.4
Replace Hydrant Fuel System, Elmendorf AFB, AK	19.5
Special Warfare Unit Facility, NAVACTS Guam	5.5
Waterfront Consolidation Facilities, NAVACTS Guam	4.8
Repair Airfield Pavement, Hickam AFB, HI	5.9
Central Receiving Facility, Naval Station Pearl Harbor, HI	9.7
Elec Distribution System Upgrade, Naval Station Pearl Harbor, HI	18.2
Engineering Management Building, Naval Shipyard Pearl Harbor, HI	11.4
Fire Station, NAVCAMS EASTPAC, Honolulu, HI	2.0
Sewer Outfall Extension, PWC Pearl Harbor, HI	22.9
Steam Condensate Return System, PWC Pearl Harbor, HI	6.1
Power Plant—Roi Namur Island, Kwajalein	12.6
Multipurpose Missile Test Facility, Kwajalein	4.6
Airframes Facility Mods (F/A–18), NAS Lemoore, CA	1.5
Hangar 4 Mods (F/A–18 E/F), NAS Lemoore, CA	5.4
Training Facility Addition, NAS Lemoore, CA	4.3

FIGURE 1 TO ANNEX C.—*Fiscal year 1999 U.S. Pacific Command military construction and family housing—Continued*

	<i>Dollars in millions</i>
Weapons Assembly Facility Improvements, NAS Lemoore, CA	9.4
Submarine Support Facility, NSB San Diego, CA	11.4
SOF Amphibious Operations Facility, NAB Coronado, CA	3.6
Missile Magazines, NAWCWD China Lake, CA	3.2
Central Vehicle Wash Facility, Ft. Lewis, WA	4.7
Close Combat Tactical Trainer Building, Ft. Lewis, WA	7.6
Consolidated Fuel Facility, Ft. Lewis, WA	4.0
Tank Trail Erosion Mitigation—Yakima, WA	2.0
Security Facility Upgrades, Bremerton, WA	2.8
Hospital Addition/Alteration, Bremerton, WA	28.0
Clinic/Warm Warehouse Replacement, McChord AFB, WA	20.0
Disease Vector Ecology Center Replacement, NSB Bangor, WA	5.7
Quality of Life:	
Replace Military Family Housing Phase 3 (46 Units), Eielson AFB, AK	12.9
Elementary School Addition and Renovation, NAVACTS, Guam	8.6
High School Addition and Renovation, NAVACTS, Guam	4.5
Replace Military Family Housing (64 Units), Schofield Barracks, HI	14.7
Whole Barracks Complex Renewal, Schofield Barracks, HI	47.5
Bachelor Enlisted Quarters, Kaneohe, HI	27.4
Bachelor Enlisted Quarters Modernization, NSB Pearl Harbor, HI	8.1
Replace Military Family Housing Phase (150 Units), Naval Complex Oahu, HI	29.1
Whole Barracks Complex Renewal, Camp Casey, Korea	13.4
Whole Barracks Complex Renewal, Camp Castle, Korea	18.2
Whole Barracks Complex Renewal, Camp Humphreys, Korea	8.5
Whole Barracks Complex Renewal, Camp Stanley, Korea	5.8
Dormitory, Kunsan AB, Korea	6.0
Dormitory, Osan AB, Korea	7.5
Bachelor Enlisted Quarters, MCB Camp Pendleton, CA	15.8
Bachelor Enlisted Quarters, MCB Camp Pendleton, CA	12.4
Bachelor Enlisted Quarters, MCAS Miramar, CA	29.6
Bachelor Enlisted Quarters, San Clemente, CA	8.4
Replace Military Family Housing Phase (162 Units), NAS Lemoore, CA	30.4

ANNEX D. SECURITY ASSISTANCE PROGRAM

The U.S. Pacific Command strongly endorses a strong and responsible Security Assistance program. We use each element of the Security Assistance Program to support our regional strategy and to maximize the return on our investment. The U.S. Pacific Command's fiscal year 1997 Foreign Military Sales (FMS) were over \$2.6 billion. Asia's financial crisis, decreases in defense budgets and foreign competition are likely to reduce sales in fiscal year 1998. Foreign Military Financing (FMF) is small in the Pacific Area of Responsibility. In fiscal year 1997 only two countries received funds, consisting of grants for demining: Cambodia (\$1 million) and Laos (\$1 million).

The International Military Education and Training program (IMET) is one of our most cost-effective programs to promote peace, security, democracy and interoperability. IMET can pay immediate dividends, but the long-term returns have even more importance, promoting long-term professional association with future military and political leaders. Many key regional leaders are IMET graduates and are strong supporters of U.S. involvement in the region. To ensure our regional objectives are achieved, we must continue the strong IMET programs that we have been providing to friendly countries in the region.

ANNEX E. ASIA-PACIFIC CENTER FOR SECURITY STUDIES

Accomplishments.—The Asia-Pacific Center for Security Studies (APCSS), established in September 1995, continues to play an important role in the U.S. Pacific Command's theater strategy. The APCSS provides the opportunity and the environment to foster understanding and cooperative approaches to security in the Asia-

Pacific region. To date, the APCSS has held four 12-week classes in the College of Security Studies with 126 future military and civilian leaders from 31 Asia-Pacific countries. The APCSS has also conducted 12 conferences with 1,102 current military and civilian leaders from 50 countries. These multilateral approaches provide superb venues for interaction between key leaders from the Asia-Pacific nations.

Facilities.—The APCSS is temporarily located in commercial facilities in Honolulu, Hawaii. Efforts are in progress to renovate an existing government building for use by the Center. This would provide a more cost-effective permanent facility for the Center within proximity to billeting and messing accommodations for attendees.

Legislative Policy Issues.—Passage of the Waiver of Charges provision in the Fiscal Year 1998 Defense Appropriations Act was crucial to attracting participants to the Center. It acts as an incentive for countries to participate by waiving tuition, or “platform,” charges, as well as authorizing attendance costs of participants from approved Title 10 countries to be waived; this mirrors legislation granted to George C. Marshall European Center for Security Studies. Identical legislation was submitted as part of the fiscal year 1999 Omnibus Bill to secure permanent authorization. This provision imposes no increase in DOD budgetary requirements, since costs are paid with appropriations already available to the APCSS.

ANNEX F. COMMAND, CONTROL, COMMUNICATIONS, AND COMPUTERS (C⁴)

The vast expanses of the U.S. Pacific Command's area of responsibility stress theater C⁴ infrastructure. The fielding of updated equipment at all organizational levels needs to continue, to include space assets. We also continue to build an information assurance capability, including: alternative paths, common joint hardware, security management tools, and training. Finally, we are pursuing improved capability to provide exchange of information with our coalition partners.

Pacific Command is pursuing C⁴ interoperability throughout the theater under an umbrella effort called PACNET. This past year theater components adopted common automation software. By June 1998 Pacific Command's Joint Task Force commanders will also migrate to this standard. In the future, Pacific Command will integrate commercial and military communications systems.

We are concerned about spectrum reallocation and potential charges for spectrum use in the United States. Other countries are often influenced by our policy. This has already led to reallocations and potential charges for exercises in Australia and Singapore. Further, systems that have been developed with old frequency allocations in mind may have to be retrofitted at a yet to be determined cost. Limitations imposed on the use of the Patriot surface-to-air missile system and the Joint Tactical Information Distribution System in Korea and Japan are examples of why we need a national spectrum strategy. This strategy should consider our national defense requirements and strive to convince other nations to align usage of their spectrum as closely as possible with ours for critical military systems.

Senator STEVENS. Well, we do thank you very much, and I regret that others are not here this morning. The two of us visit you so often it is almost—we ought to have this visit in our office, but it is good to have a record so others might see it if they desire to do so.

You did mention China a little, and you mentioned the Indonesia situation a little. In view of what happened the day before yesterday, the riots in Indonesia, have you changed your planning as far as the presence of our forces in that region?

Admiral PRUEHER. No, sir, we haven't changed our planning. We are doing a lot of work with Indonesia, both the Treasury Department and we are staying in communications with them.

We have only periodic forces, and those numbers are very small that are in Indonesia, but our planning and the ships in the area have not changed as a result of the recent riots in Indonesia. Demonstrations in Indonesia is a better word for it.

We stay abreast, we monitored that with the country team, we monitored that with the ABRI, with the Indonesian military, and

stay in touch with them, but we have not redeployed any forces as a result of what's gone on there, sir.

IMPACT OF PERSIAN GULF DEPLOYMENTS

Senator STEVENS. The deployments to the Persian Gulf region, have they strained our security in the Pacific as a whole?

Admiral PRUEHER. As you know so well we have deployed the Indy carrier battle group to the Persian Gulf region, as well as a ARG, MEU, and a marine expeditionary unit, as well as some additional prepositioning ships. We have also gone from five to seven prepositioning ships in the gulf.

What has occurred are opportunity costs for interacting with the other nations in the western Pacific that we would normally do with the ships, the Indy carrier battle group, and with the marine amphibious ready group, as well as the marine expeditionary unit.

The other part that has been stressed is our ability to respond to a crisis in Korea, and we have backfilled that by deploying some F-15's from Alaska, a squadron of F-15's from Alaska to Korea, and we have deployed also two AC-130 gun ships, but our ability to respond to a crisis in Korea, should it come up, is stressed.

However, in the realm of prudent risk and what we think is the likelihood of a conflict in Korea, it seems like a prudent risk to take right now in order to respond to what's going on, our Nation's response in the Middle East, sir.

Senator STEVENS. Iran is still within your area, is it not?

Admiral PRUEHER. No, sir, Iran is in the Central Command AOR.

Senator STEVENS. I thought you went to the eastern side of the gulf.

Admiral PRUEHER. We go to the eastern coast of Africa. There is a right-angled chunk out of the gulf that belongs to CENTCOM that goes from Somalia East and then north to the intersection between India and Pakistan.

Senator STEVENS. I have two last questions.

Admiral PRUEHER. Yes, sir.

Senator STEVENS. One is, we earmarked a portion of the Nunn-Lugar money to see to it that the Navy, under your command, would have an opportunity to work with the Russian forces and their Far East to bring about a reduction in nuclear problems there——

Admiral PRUEHER. Yes, sir.

COOPERATIVE THREAT REDUCTION

Senator STEVENS [continuing]. With regard to the powerplants and some of the decommissioned vessels, and also to a certain extent, in the overall nuclear area. How is that working now?

Admiral PRUEHER. Senator, I think it is working well. The cooperative threat reduction to which the committee put \$35 million against is being run from the cooperative threat reduction office in OSD and the Joint Chiefs. CINCPAC, as our nuclear agent, has been working with them.

The status of that is the State Department approvals have been acquired. There are contracts being announced that would go to both Russia and the Far East, and United States contractors in the

Far East, and this is awaiting SECDEF approval to spend the money.

We expect that money to be obligated within the next 2 months, and it is all scheduled to be spent in the Russian far east for the purposes of that you described, to try to take care of the nuclear powerplants and the decommissioning of Russian ships.

So it is tracking well right now. We are watching it very carefully, and I think it's on track for the purposes that the committee put the money.

Senator STEVENS. A year ago it did not seem that the Russians were able to put a high priority on those activities, in view of the problems of pay, and relocation of their forces, and downsizing of their systems, and we were very worried about the number of nuclear units, particularly on some of the decommissioned submarines.

Admiral PRUEHER. Yes, sir.

Senator STEVENS. We made that money available last October. It's not been released yet, right?

Admiral PRUEHER. No, sir; it hasn't been released yet, but I think it will get spent well and spent for the correct purposes, but it has not been released yet, sir.

Senator STEVENS. Have we at least had an opportunity to inventory the size of the problem?

Admiral PRUEHER. Yes, sir.

Senator STEVENS. I am getting ready to markup another bill, and we do not have any indication from your Department that any additional moneys are necessary. They have not spent what we have made available so far.

Admiral PRUEHER. The OSD, and we owe the committee a response, and I will get back as soon as we are through here to make sure that response gets to the committee quickly, in time to use it for the next markup, sir.

The problem is a real one, the Russians are unable to respond to it, or appear to be unable to respond to it, the help is needed, and I believe it is working in the right way. If it is different than that I will get back to you, sir.

Senator STEVENS. Now, the admiral we met at Vladivostak was transferred to Moscow, and he has a really elevated position——

Admiral PRUEHER. Yes, sir.

Senator STEVENS [continuing]. As I understand it.

Admiral PRUEHER. That's Admiral Kuriatov, who was the Pacific Fleet Commander, who is now the chief of staff of the Russian Navy.

Senator STEVENS. He was quite interested in this when we discussed the prospect with him. Have we followed through with him at all?

Admiral PRUEHER. Yes, sir, we have. We have been in contact with him through CINCPAC and also through the CNO's office, and I will provide the details of that to you, sir, to make you more comfortable with the contacts, and make me more comfortable with the contacts.

Senator STEVENS. I was very uncomfortable with the sight of submarines sinking in their berths.

Admiral PRUEHER. Yes, sir.

Senator STEVENS. Those were nuclear submarines.

Admiral PRUEHER. It is a real problem, sir.

Senator STEVENS. I will get back to some more provincial things later. Senator Inouye.

PACIFIC FORCE REDUCTIONS

Senator INOUE. Thank you, Mr. Chairman. About 10 years ago we decided that the cold war had ended, and the Soviet threat had disappeared, and accordingly we began reducing our force levels throughout the world.

Then about 6 years ago, soon after we closed Subic, the chairman and I took a strange trip throughout your area of responsibility, at the suggestion of Defense and State, to meet with the chiefs of state and the chief military officers of countries like Australia, Indonesia, Malaysia, Thailand, the Republic of Vietnam, Philippines, People's Republic of China, Korea, Taiwan, and Japan, and the question we asked was a very simple one, do you want the United States to remain in this area or do you want us to leave. The answer in every capital was a clear and unmitigated, please do not leave.

Senator STEVENS. Even Beijing.

Senator INOUE. Beijing and the Republic of Vietnam. Some cited the situation of Spratly, where six nations are now claiming these small islands because they have found oil, and each nation with forces numbering up to a battalion.

Others cited the possibility of a massive arms race, involving the Japanese, and the Chinese, and the Koreans, and there were many, many reasons there. But yet we have reduced our Pacific forces by approximately 20 percent since that time, numbering over 25,000, and there is a possibility of further reductions in the force level. Now, what are your thoughts on that?

Admiral PRUEHER. Senator, I think if you surveyed the same countries again you would find the same answer, that the nations there universally, and I think the PRC might demur on their answer a little bit right now, but the nations want the U.S. presence, and they want forward deployment, to see the commitment of the United States to the Asia Pacific region, and the security in that region.

Our forward deployed forces, which number about 100,000, and they are represented by the capabilities of the 7th Fleet, the 3d Marine Expeditionary Force, the 5th and 7th Air Forces, the first of the 1st Special Forces Group, and the 8th United States Army in Korea, are manifestations, probably the most visible manifestations of United States commitment to security in the Asia Pacific region. They bring a great balance to the region and a sense of security that has allowed the region to prosper overall. They want that.

Further, we have recently been through the quadrennial defense review, and reaffirmed there, and reaffirmed by the President's Secretary of State, the Secretary of Defense, the commitment to keep about 100,000 troops in the Asia Pacific region.

We need them there to do this preventive defense that we talked about earlier, if we're going to be forehanded and farsighted, and

be able to handle problems while they are modest, instead of allowing them to grow.

Our presence is desired. I think our forces are doing it in a good way, as Ambassadors, as well as enforcers, not only for the United States, but working as partners with the nations in the region.

INTERNATIONAL MILITARY EDUCATION AND TRAINING [IMET]

Senator INOUE. Admiral, I am glad that you pointed out in the opening remarks that six of the seven largest armed forces in the world are located in your area of responsibility, in the Pacific, and that some of the more troublesome areas are in your area of command, such as Korea, and the possibility of problems in Southeast Asia, the present problems in Indonesia. What are your thoughts on IMET?

Admiral PRUEHER. Thank you for asking that, sir. The IMET program, which is the international military education and training, is a fund by which we are able to work with the militaries of other nations, it is administered by the State Department, but it works with the militaries of other nations, where they can get exposed to democracies and democratic principles.

In my opinion, it is one of the highest payoff, most highly leveraged, for relatively small amounts of money, the amounts of money are in the categories of \$400,000, sometimes \$4.16 million, in the case of Thailand, which is the largest one in our AOR. They have huge payoffs with training and working with the military in these nations.

I would like to give an example using Thailand because we have had IMET training with Thailand for quite a while. In Thailand, they have been a good ally for us, they have allowed basing for us, no questions asked, when we wanted to fly B-52's through there, to work in the Middle East. We have trained with the Thais, we have good political and military relationships with the Thais.

General Mongkong is the supreme commander of the Royal Thai armed forces, and he, about 9 months ago, when the government was falling, the prime minister of Thailand was being disenfranchised in Thailand, General Mongkong, who is a very powerful person, had the opportunity and a lot of pressure from outside, to do a military take over, to declare perhaps marshal law, and to run the country with the military.

Owing to the fact that he had been IMET trained, among other things, as well as the fact that he is a Thai patriot, he resisted these pressures and supported free elections in Thailand, in which Prime Minister Tron Luc Pi was elected, and now Thailand, as we discussed earlier, is working very hard to come out of their economic crisis.

They have military security in Thailand, and they are a staunch United States ally. That is one example of one of the payoffs of IMET.

One of the costs of IMET, I think, is in Indonesia, where in 1992, IMET was canceled with Indonesia by the Congress, and in my view, if we disapprove of what is going on in a nation, that is the wrong answer. We need to try to educate that country, the military of that country in democratic principles. I think we should be contacting them, not isolating them, and in 1996, Congress repassed

expanded IMET for Indonesia, and in 1998, Indonesia has accepted it. So that is back on a better track than it was. IMET is a very valuable tool.

Senator INOUE. As you noted in your response, this program is under the jurisdiction of the State Department.

Admiral PRUEHER. Yes, sir.

Senator INOUE. The chairman has suggested that we should consider placing this under the DOD account. I realize this is a policy matter, and if you do not wish to respond, I understand. Do you think that is a good idea?

Admiral PRUEHER. My opinion is that it would work well under DOD account, also, sir, and it works all right the way it is. I think it might be more cleanly administered if it were a DOD account, sir.

FORD ISLAND DEVELOPMENT

Senator INOUE. Finally, may I just note my pleasure in receiving the word of your support of the Ford Island development, because I say so not only as a Senator from Hawaii, but as a member of the Milcon Subcommittee and this committee.

As you know, the dollars available for military construction is dwindling, and this, I believe, may be the model for things to come in the United States, where the private sector can be involved in—

Admiral PRUEHER. Yes, sir.

Senator INOUE [continuing]. Military construction. So I commend you and your command, and I look forward to it becoming a real thing.

Admiral PRUEHER. Thank you very much, Senator.

Senator STEVENS. Thank you.

Senator Cochran.

Senator COCHRAN. Mr. Chairman, welcome.

Senator STEVENS. Thank you, Senator Cochran.

NORTH KOREAN THREAT

Senator COCHRAN. I am glad to see you again. One of the troubling areas in your region is the North Korean situation, there's an indication of instability there, in terms of the economy, and food shortages, and all the rest, and in spite of those difficult economic challenges, we see the North Korean military continue to, according to reports, develop offensive capabilities like the Nodong missile, and even to the extent that it may be deployed now, or fielded, rather than just under development.

What can you tell us in this hearing about the nature of the threat to United States forces and our ships in the region, because of North Korea's continued upgrading of its ballistic missile capability?

Admiral PRUEHER. Senator, the Scud missiles that North Korea exports and develops, as well as the Nodong missile create a real potential threat to our forces, as well as those of our allies in South Korea.

These missiles, I am trying to stay at the unclassified level here, do not pose—it would be only a random threat to a ship, but if one

draws a circle with the radius of the range of those missiles, they do create a problem for our forces in South Korea.

So as we try to work toward reconciliation in North Korea, which I am encouraged about the transition of the Kim Dae Jung government in South Korea, the continued investment of North Korea in exercises and of developing this missile capability stays a high concern of ours that we watch very closely.

MISSILE DEFENSE

Senator COCHRAN. Do you have adequate capability to defend the assets in your area of operations against ballistic missile attack?

Admiral PRUEHER. The fear of missiles to defend against is a key issue that we need to work. The defense that we have is not as adequate as we would—it is not as robust as we would like. We have some capability to defend. We would rather have more.

We keep a close eye on both the likelihood of a ballistic missile attack and the ability to defend. I am comfortable right today with that risk reward ratio; however, the incentive to launch a ballistic missile attack could come up in a hurry, in which case we would have an inadequate ability to respond to it, sir.

Senator COCHRAN. One specific statement that you made in your testimony is, and I quote, "With North Korea developing long-range ballistic missiles, the differences between theater missile defense and national missile defense are blurring," and you say that "we need to keep Pacific geographic and geo-political considerations in mind." What exactly do you mean by that?

Admiral PRUEHER. Good question, sir. The national missile defense is important to all of us. The physics of creating a national missile defense are inhibited by the Ballistic Missile Treaty, and the political ideas, I think, of the Anti-Ballistic Missile Treaty are to put some restraint on what Russia and the United States do in the missile defense area.

I think we have made great strides in theater ballistic missile defense. The altitudes of theater ballistic missiles and the speeds of theater ballistic missiles are less than those of the strategic missiles. So they are not completely separate issues.

There are politics entwined in this, there are laws of physics entwined in this. I think the proper course for us to do at this point is to work on theater ballistic missile defense to the maximum extent that we can, and there is a lot of tradeoff, and there is a lot of benefit we can get that will be applicable in national missile defense if we become able to really work hard on that one, sir.

AMPHIBIOUS READY GROUPS

Senator COCHRAN. One of the pressures on your assignment is to make sure you have the amphibious mobility in a huge geographical area—

Admiral PRUEHER. Yes, sir.

Senator COCHRAN [continuing]. To deal with threats as they may arise. From an operational point of view, how valuable are the amphibious ready groups to ensuring this capability?

Admiral PRUEHER. They are of tremendous value, sir. Our AOR, because of its size, and because of the largely maritime nature, the ability to move position, carrier battle groups, as well as amphib-

ious groups to the right place at the right time, and, again, try to outguess the situation on the part of the commanders in the region, is very important. This ability to respond is critical.

Senator COCHRAN. How would a reduction in the number of amphibious ready groups affect your warfighting plans?

Admiral PRUEHER. It would have a negative impact on it, sir. We have those amphibious ready groups deployed worldwide, some east coast, some west coast, and then, of course, we have one that is home ported in Japan. In our AOR we need all that we have, and I think it would be said by the other CINC's as well.

Senator COCHRAN. Thank you very much.

Admiral PRUEHER. Thank you, Senator Cochran.

Senator STEVENS. Senator Domenici.

Senator DOMENICI. Thank you very much, Mr. Chairman.

Hello, Admiral, it is nice to see you.

Admiral PRUEHER. Hi, Senator, it is good to see you again.

Senator DOMENICI. We did have a rather exciting trip that preceded our visit with you at your command, and I remember it vividly, and the exciting part was North Korea. A few things have happened since then, but probably the most important thing have been the big changes in South Korea—

Admiral PRUEHER. Yes, sir.

Senator DOMENICI [continuing]. Which may have a longer and more lasting effect on the North Korean relationship than things we were doing before this new president.

First, I want to compliment you, while I did not get a chance to read your statement, I find your analysis of things to be good and so credible, and in conformity of that, I will read it. I just made a note to take it with me so that when I have time I can read it. But my staff did point out some areas in it that I want to commend you on.

First of all, I want to commend you for the frankness that you have exhibited today, particularly on pages 24 and 26, regarding readiness. We are having a lot more difficulties with others in the military to get such frank discussions of readiness and quality of life.

I am going to submit to you, and I hope it is not too burdensome, but five questions with reference to readiness and the quality of life.

In all, with the subquestions, there might be 14 or 15, but I think with what we are beginning to learn from our trip to the Middle East about morale and the constant return to an area 10, 15, 8 times, or 9, by military men and women, who may soon decide that they do not know what they are in there for, some of these have to do with quality of life, I hope if you do not have information about the quality of life that you will tell us you do not. I think these are important. I am going to leave them in the record, you can answer them.

Admiral PRUEHER. Thank you, sir.

Senator DOMENICI. Mr. Chairman, I might complain to you through this committee about the previous request that we have made of all three of the military branches with reference to quality of life, readiness, and the like, and only one has bothered to answer

the questions at all, and that was the Marines, and they only answered with reference to the exit polling that they took.

I would surely like to ask your staff, the committee staff again, to go back and repeat those questions and see if they cannot give us their in-depth quality of life and exit poll.

Senator STEVENS. That will be done. With those answers, I will have another hearing.

PACIFIC ECONOMICS CRISIS

Senator DOMENICI. Thank you very much. Let me talk a minute about economics. When my friend asked for your views on IMET, I do not hear too well out of this ear, and I thought he said IMF, and I was very excited, because I thought you had commented about IMF, and perhaps you were going to elaborate on it.

I guess whether you want to give us your view on IMF refurbishment or not, but you have already said that the job of your area of responsibility is made much more difficult by some of the fragile economic situations in the countries that 5 years ago were in pretty good shape, and were growing and prospering, that is correct, is it not?

Admiral PRUEHER. Yes, sir, that is.

Senator DOMENICI. I do not know if you want to answer in public, but maybe I will just put the question to you, you are good with words, and you use them appropriately.

If I were to make a statement that in the Asian area there is a chance that there will be some serious revolutions or major civil strife because of the economic chaos that is coming now and the foreboding lifestyles, would you agree with that statement?

Admiral PRUEHER. Not necessarily, Senator. I think that just the economic situation has increased the stresses and strains on the governments.

What I would like to say is that I think that the military security part, if we were to exacerbate the financial strains that are going on now with military insecurities, also, then we might have some bonafide unrest in the countries that could occur.

What we were trying to do with the East Asian nations, to the extent that we can influence it, is to continue to work with them to try to create a bedrock of military security where we can, so that the economic crises can be dealt with without having the additional stress of military instability.

Our biggest concern is in Indonesia, where those stresses are the largest, where there is political stress, there is economic stress, and the military in Indonesia, I think, is trying as hard as they can, I have talked to General Wiranto, their head, and both their minister of defense and their—he has two jobs, minister of defense and the head of the ABRI, they are doing the best they can to work in a responsible way, but it is a very challenging and sensitive situation in which they find themselves, and we watch that situation very closely, sir.

Senator DOMENICI. So are you saying—well, you did not agree with my statement, which I did not necessarily expect you to, but your job is made more difficult, because of the situations that are currently occurring, and which might happen in some of these countries.

Admiral PRUEHER. Yes, sir. It has changed. With 7 to 9 percent economic growth, a lot of the ills can be accommodated. Without that economic growth, the strains become greater.

WRAP-UP

Senator DOMENICI. Mr. Chairman, I will submit some other questions in writing, and just take 1 minute to wrap-up.

And this does not have necessarily anything to do with you, but the more I observe the difficulty that this Appropriations Committee is having in meeting the needs of the military, and where we are almost every year getting one or two major emergency requests, be it for Bosnia, which is at \$1.91 billion for next year, it is not in the regular budget, it was asked for on top of it, and where we have had similar situations already in the Middle East, where big expenditures were not in the budget, and we were asked to pay for them on an emergency basis, that is breaking the budget, but not breaking it—I have come to the conclusion, and I expect no response from you, that the approach of the administration is a way to get around asking for more money for defense, and frankly, I think that is the case.

I think defense needs more money, and I think these constant emergency requests are an indication that the White House, and those who work there, do not want to face up to the fact that we probably need a few billion dollars more for defense.

And frankly, I do not know that we will get emergency designations every time they ask, and that means that defense is going to get hurt more, so you are going to have to run around trying to find that money, and I do not think that is fair to this committee, and I think it is an easy way out, to not have to bite some tough bullets.

And, again, I am going to stay on this point until I get it out there and get some people over there understanding that we just cannot keep taking money out for deployments around the world, and still have a ready military and military men and women who want to stay in this great armed services of the United States. Thank you.

Senator STEVENS. Thank you. We do not expect a response to that, Admiral.

Admiral PRUEHER. Yes, sir.

Senator STEVENS. I said we did not. Needless to say, when it comes to the Budget Committee chairman, it is welcomed by my colleague from Hawaii and I, and we will be pleased to work with him somehow to break this impasse. We clearly need some more money this year.

I went to that ceremony on the new designation of the 172d Brigade. We were delighted to see that, and the concept that is involved there. I want to congratulate you on that.

It does find a solution to what I called the problem of the Orphan Brigade in Alaska, and we are glad that it now has a definite assignment. Can you tell us what—you mentioned the scenario of the recent problems, in terms of the straits in China.

CRISIS RESPONSE FORCE

Are there any other scenarios that you envision using that brigade to be part of your crisis response force?

Admiral PRUEHER. Well, sir, in response to Senator Cochran's query about the marine amphibious ready group and the marine expeditionary units, I think this brigade is an air-deployable brigade that responds to similar types of events, where an example would be what occurred about 8 months ago in Cambodia, where we responded with 530 people, they happened to be the special operations forces, and nine aircraft, that is the type of thing where a brigade like that, properly trained, might be a response team, something of a modest size that could get there quickly and could react to a noncombative evacuation, or events like that. It is a great utility tool to have in the CINC's toolbox to be able to respond, sir.

Senator STEVENS. You have the forces in Hawaii. Is this the only other army force at your ready command?

Admiral PRUEHER. The second tier under us are, of course, the 8th United States Army in Korea, that really work for General Tilelli there, and they are dedicated to the situation in Korea.

It is the ICOR in Fort Lewis, General Crocker's group, is under USPACOM command, but that is largely a headquarters where all the forces are Reserve and Guard units under ICOR. So this and the 25th Infantry Division are the Army units, the multipurpose Army unit that we would have under our command, sir.

OKINAWA UPDATE

Senator STEVENS. There is a situation now in Okinawa, I read a story about the status on our recent trip, which discussed the particular problems of relocating, what is that, the Futenma—

Admiral PRUEHER. Futenma. Yes, sir.

Senator STEVENS [continuing]. Air strip. Is that worked out yet?

Admiral PRUEHER. It is not worked out yet, sir. The Government of Japan is working a lot with the local politics in Okinawa to work on a replacement capability for the Futenma Marine Corps Air Station there.

The plan most under discussion is a sea base facility which could be either a pontoon type of arrangement, a large air field, or a landfill, called a sea-based facility, off of Camp Schwab, is most frequently talked about, but this is being worked out with the Government of Japan and the Okinawans.

Senator STEVENS. I understand that that is to be at Japanese expense, right?

Admiral PRUEHER. Yes, sir, it is.

Senator STEVENS. Is the current situation of Japan's financial condition delaying this at all?

Admiral PRUEHER. I do not think it is delayed because of the financial situation in Japan. It is a substantial expense. I think the investment in the Okinawa area is something they are working out, but largely it ends up trying to reconcile the local politics in Okinawa, vis-a-vis these facilities.

It is interesting that a couple of mayoral prefecture elections that were recently held, the candidate that supported United States

presence in Okinawa was the candidate that won, which is a little bit of a change of tack in Okinawa with what we have seen in the last 2 or 3 years, sir.

Senator STEVENS. Senator Inouye, when he was chairman of the subcommittee, held some hearings that I attended in Okinawa, if you recall, and that is a longstanding dispute.

Admiral PRUEHER. Yes, sir; our United States military there in Okinawa, with our marines there, as well as Kadena Air Base, as well as our Army special forces unit there, it has large footprint in Okinawa.

So of the 26 items that were addressed under SACO, which is the Special Action Committee on Okinawa, that Dr. Perry set up, quite a few of those items have been completed and have been resolved. There are a few outstanding ones, the most difficult of which is the Futenma Air Base relocation, and that one is still working, and I think will take a few more years to work out, sir, but it is a longstanding issue.

I have to tip my hat to Gen. John Baker, who is the Air Force leader at Kadena. He has done a great job there, and Gen. Frank Libutti has taken over the III Marine Expeditionary Force [MEF], and marines there are doing a great job of working with the community.

I think what you find there is pro-American, but if it is like it is at home, people do not like to live in the landing pattern, so the basing is an issue we have to work out, sir.

Senator STEVENS. Like my State, those homes were put in after the field was put there, and it still is a problem.

Admiral PRUEHER. Yes, sir.

NORTHERN EDGE EXERCISE

Senator STEVENS. Northern Edge, my staff tells me that the next exercise will be a joint training and experimentation test bed for emerging doctrine, advanced technologies, and innovative concepts. Is that correct?

Admiral PRUEHER. Yes, sir; the last Northern Edge that we did with General McCloud in Alaska, and I think you got a good debrief on that, where they included information, assurance operations in there, and about 96,000 people were involved in that joint exercise in Alaska.

The ones coming up, we have forecast them to have Japanese participation, Australian participation in that exercise, as well as a joint exercise, and an experimentation test bed for communications and information assurance.

Senator STEVENS. Will forces under your command be involved—

Admiral PRUEHER. Yes, sir.

Senator STEVENS [continuing]. Naval forces?

Admiral PRUEHER. Yes, sir; the plan is for the 3d Fleet flagship to go up there and be a participant in Northern Edge. We have not really gelled exactly how that is going to turn out, but there will be naval forces involved in it, too.

Senator STEVENS. Do you have any further questions, Senator Inouye?

Senator INOUE. Just one, and I would like to submit the rest. I understand the joint surveillance and target attack radar system [J-STARS] aircraft was used in exercises in your command at the end of last year—

Admiral PRUEHER. Yes, sir.

Senator INOUE [continuing]. And that included using the aircraft in support of amphibious landing exercises in Korea.

Admiral PRUEHER. Yes, sir.

J-STARS

Senator INOUE. How would you assess the utility of J-STARS? I ask this, because it may become a matter of some discussion in this committee.

Admiral PRUEHER. Yes, sir; J-STARS is a very useful platform, designed, of course, originally to look at moving targets, and to assess what is going on on the battlefield. It has become even more important as a battle space management aircraft to also help coordinate what goes on in the battlefield. It worked well in Korea, the aircraft is—we pushed it to deploy, we deployed it to Bosnia, we deployed it to the Korean Peninsula, it worked very well there, sir, and is a great utility to us.

Senator INOUE. Mr. Chairman, if I may, I would like to submit the rest of my questions.

Senator STEVENS. Yes, sir; I have a couple of questions I did not ask, also.

Senator Cochran.

Senator COCHRAN. I have no further questions, Mr. Chairman.

Senator STEVENS. Admiral, it is always a pleasure to see you. I remember so well when we saw you just before we went down to the Antarctic and the book you gave me.

Admiral PRUEHER. Yes, sir.

Senator STEVENS. I hope you have another book as equally interesting as the one that I read so faithfully on that trip. It is a wonderful, wonderful story. We will be contacting you about that problem of the \$35 million, and whether there is going to be any incremental amount that will be necessary.

It is highly important that we not just concentrate funds on areas west of the Urals—east of the Urals, particularly along the northern coast, and there along the Pacific Coast, the Bering Sea Coast, there seems to be an accumulation of retired or decommissioned nuclear-powered vessels in Russia, and we certainly do not want to see a resumption of dumping at sea of nuclear systems that are still capable of contamination in that great body of water. One-half the fisheries of the world are in that area of the North Pacific.

I appreciate your courtesy of being here. We apologize again for the delays, and it is good to see you.

ADDITIONAL COMMITTEE QUESTIONS

Admiral PRUEHER. It is good to see you, too, Senator, and I will followup with the response to that.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

IMET

Question. Admiral Prueher, please discuss our military training with Indonesia. What kind of an IMET program do we currently have with Indonesia?

Answer. Each of U.S. Pacific Command's service components train with Indonesia. Training is coordinated annually during the Bilateral Defense Discussions (BDD), an annual meeting that lays the foundation for shaping our military-to-military relationship. Training events with Indonesia are on a relatively small scale and focus at the tactical level. Exercises normally occur on an annual or biennial basis with several iterations of an exercise throughout the year.

Due to Indonesia's uncertain political environment, all U.S. military training with the Indonesia Armed Forces (ABRI) in Indonesia was put on hold as of May 7, 1998. We anticipate that until the political environment in Indonesia stabilizes, future U.S. military activities with ABRI in Indonesia will be determined on a case-by-case basis by the Under Secretary of Defense for Policy.

Congress suspended the International Military Education and Training (IMET) in 1992 due to the 1991 Dili incident in East Timor. Subsequently, Indonesia was approved for Expanded IMET (E-IMET) in 1996. E-IMET provides training in the proper management of defense resources, improves systems of military justice in accordance with internationally recognized principles of human rights, and fosters greater respect and understanding of the principles of civilian control of the military.

For fiscal year 1998, Indonesia was granted \$400,000 for E-IMET training. Indonesia has agreed to participate and has requested training in English, medical services, information management, Law of War workshops, and civil-military affairs. ABRI has also requested a slot at the National Defense University.

Question. What benefits are derived from having an IMET relationship with Indonesian Armed Forces?

Answer. IMET's greatest benefit can be found in its ability to influence relations with Indonesia Armed Forces (ABRI) on important issues such as human rights and the role of a professional military under the rule of law. When ABRI trains with our troops and attends our courses we are able to directly expose ABRI's upcoming leadership to the democratic principles we hold dear. Our troops provide a model for how a military functions under the rule of law, and the academic courses we offer reinforce this same message.

In my opinion, ABRI's commendable moderating influence in the recent Indonesian transition from the Suharto regime can be traced, at least in part, to the exposure of ABRI leaders to IMET programs.

Question. If we don't stay engaged with Indonesia, what will be the likely outcome?

Answer. Indonesia is a leading nation in Southeast Asia. Its size and location make it a pivotal country in maintaining regional stability and prosperity. Indonesia is the world's fourth most populous country and largest Muslim country. She sits astride the region's key straits—Malacca, Lombok and Sunda—which serve as Asia's primary trade routes for the movement of goods and energy supplies.

Indonesia has historically exerted a moderating influence on regional issues. Generally supportive of U.S. interests, Indonesia is a leading member of the Association of Southeast Asian Nations (ASEAN) and a driving force behind the creation of the ASEAN Regional Forum (ARF). Indonesia is also a founding member of the Non-Aligned Movement (NAM) and a member in the Asia-Pacific Economic Council (APEC).

Indonesia is currently in the midst of a major political and economic transformation. The outcome of this transformation will determine Indonesia's stance in international relations and many issues important to the United States. Failing to engage Indonesia during these critical times would mean losing the opportunity to influence the country's transformation.

One key to influencing Indonesia is to engage the Indonesia Armed Forces (ABRI). ABRI is Indonesia's leading and most developed national institution and is now playing a decisive role in maintaining stability in Indonesia while directing the pace of political reform. If United States expects to see its positions take hold in Indonesia, it will be done most effectively by influencing ABRI.

IMET is an important long-term tool to building the relationships the United States needs to bring influence on ABRI's emerging leadership. Besides building relationships, IMET exposes ABRI to how the U.S. military functions in a democracy, under the rule of law. IMET is an important tool as are carefully scripted contacts between the United States and ABRI forces.

Without engagement, and particularly with ABRI, the advance of U.S. interests both in Indonesia and in the larger region will be jeopardized.

CHINA

Question. Admiral Prueher, do you view China as a threat?

Answer. To answer this question we must first ask, a threat to whom? Its neighbors certainly view China's large army and inventory of ballistic missiles as a potential threat. Ballistic missiles are of particular concern because of their ability to hold population centers and military installations at risk.

China is not a threat in terms of force projection. They do not currently have the ability to move large numbers of troops and firepower across great distances. They cannot match the U.S. ability to fight far beyond its shores, and so are not a threat in that sense.

We expect the People's Liberation Army (PLA) to try to attain a force projection capability in 15-20 years, assuming an adequate degree of funding. Other challenges, such as doctrine development and the "professionalization" of their military must also be watched closely. I expect China's PLA will become more and more professional. Their growth in capability will depend on good decision-making and continued economic growth.

Question. What is your plan for military-to-military relations with China?

Answer. Our military-to-military contacts with the People's Republic of China (PRC) are an important part of the overall U.S.-China relationship. Our military-to-military goals are two-fold: build trust and understanding from a position of U.S. strength, and increase openness. These are long-term goals that will take years to accomplish. As a result, we are actively seeking to include younger generations of military officers in the process, but the pace of our engagement does not need to be hurried.

Our military-to-military game plan for 1998 includes four areas of emphasis: counterpart and other high-level contacts, increased PLA participation in multinational conferences, implementation of confidence building measures, and promoting functional and professional exchanges.

A number of counterpart visits and other high-level contacts are already planned for this year. They include visits to the United States by GEN Zhang Wannian (Senior Vice Chairman of the Central Military Commission and the PLA's senior-most uniformed representative), GEN Wang Ke (Director of the General Staff Department), LTG Kui Fulin and LTG Qian Shugen (both Deputy Chiefs of the General Staff Department), and VADM Shi Yunsheng (Commander of the PLA Navy). From the United States, SECDEF Cohen, Under Secretary Slocombe, Gen Ryan, and I have all visited China this year.

We encourage PLA participation in multinational conferences and seminars. So far this year, the PLA has participated in the Pacific Area Senior Officer Logistics Seminar (PASOLS), Pacific Armies Management Seminar (PAMS), the Asia-Pacific Military Medicine Conference, the South Asia Peacekeeping Conference, and the Conference on Military Aspects of Environmental Security. We continue to invite the PLA to attend the Asia Pacific Center's Strategic Studies College, though they have yet to accept.

Confidence building measures (CBM) are another important part of our gameplan. Our CBM's include two U.S. Navy ship visits to the PRC in 1998 and implementation of the Military Maritime Consultative Agreement, a formal framework to reduce the chance of miscalculation when our naval and/or air operations occur in close proximity. We will hold the first annual meeting in July 1998.

Functional and professional exchanges hold the greatest potential for progress in 1998. For the first time, the PLA has agreed to send observers to Rim of the Pacific (RIMPAC) Exercise, Cooperative Cope Thunder, and Hong Kong Search and Rescue Exercise (SAREX). They are also actively participating in the Deputy Assistant Secretary of Defense (DASD) for Peacekeeping and Humanitarian Assistance (PK/HA)-sponsored humanitarian/disaster relief initiative. These venues, as well as the multilateral conferences, provide the best means of achieving our long-range goal of involving the younger generation of PLA officers.

Question. Have you had much success in your efforts with China to expand those military contacts and exchanges?

Answer. Yes. We have had some success in each of the four areas that define Defense Department military-to-military relationship with the People's Liberation Army (PLA). In all cases, the relationship has expanded at a measured pace with a focus on moving contacts to lower levels.

Our counterpart visits and other senior-officer contacts are the basis upon which we build all other relationships. This component was re-instituted with vigor in

1996 with Minister of Defense General Chi Haotian's visit to the United States. In 1997, a total of sixteen senior officer delegations visited each country, evenly split each way. The 1998 program is more modest with five PLA delegations to the U.S. and six U.S. delegations to the People's Republic of China.

PLA participation in multinational conferences has made significant progress since 1996. Last year the PLA attended half (11 of 22) of the conferences held by U.S. Pacific Command component commands. This year the PLA will easily surpass that number. More importantly, the PLA attendees are actively participating this year through more open discussions and presentations. We will continue to push for even greater participation in 1999.

Confidence building measures continue with our U.S. Navy port visits to Hong Kong and official ship visits to mainland ports. Last year's visit to Qingdao was a great success, as was the first PLA Navy ship visit to Hawaii and West Coast ports. We have planned three U.S. ship visits for 1998. We are encouraging the PLA Navy to visit the United States again in 1999.

Perhaps our greatest area for progress has been the Functional Exchanges. Foremost are the Military Maritime Consultative Agreement (MMCA) talks scheduled for mid-July. This series of discussions is designed to prevent miscalculation at sea. Other major topics include the Humanitarian Initiative, military aspects of Environmental Security, and the Defense Consultative Talks.

ASIAN FINANCIAL CRISIS

Question. Admiral Prueher, what impact has the ongoing economic/currency crisis in Asia had on regional security?

Answer. Maintaining regional security in the face of the ongoing crisis is key to the region's long-term development. Our analysis focused on the hardest hit countries: Thailand, Malaysia, Indonesia, Philippines, and South Korea. The immediate concern was that the financial crisis would lead to a security crisis. With the exception of Indonesia, the security situation throughout the region remains stable. However, the full impact of the financial ills are just now beginning to take effect.

Indonesia remains particularly vulnerable to a resurgence of rioting and civil disturbances as shortages of food, fuel, and credit grip the country. We are watching this situation closely and are conducting appropriate planning to protect U.S. interests should a crisis arise.

Over the longer term, government austerity programs will reduce the region's ability to provide for its self-defense. Regional security cooperation in fora such as the Association of Southeast Asian Nations (ASEAN) Regional Forum will suffer as ASEAN members focus inward on their economic programs. The potential for regional friction increases the importance of sustaining U.S. military presence and engagement programs.

U.S. Pacific Command is working closely with each country to ensure we remain engaged and emerge from this crisis with an even closer relationship.

Question. What planning are you doing for a possible non-combatant evacuation operation (NEO) or refugee contingencies as a result of this crisis?

Answer. We have been assessing similar scenarios for some time, and have taken measured steps to ensure we are ready. Whenever a possible crisis has the potential to endanger American citizens, both the embassies and U.S. Pacific Command (USCINCPAC) review existing contingency plans and update intelligence to maximize our preparedness. Likewise, when a possible humanitarian emergency appears to loom on the horizon, we conduct a coordinated assessment of what help the United States could and should bring to bear, and how USPACOM could lend support.

[Deleted.]

Please be assured, we have forces ready and capable to respond to both such emergencies, and watch for signs they may be needed with an unwavering eye.

Question. Will the crisis have an impact on how these countries modernize their Armed Forces, as well as their ability to share the cost of U.S. presence in Japan and Korea?

Answer. The financial crisis has had a significant impact on the Republic of Korea's (ROK) defense modernization program, as the country has scaled back or postponed many of its modernization projects. Those major programs affected include: procurement of airborne warning and control system (AWACS); construction of three 1,500 ton submarines; purchase of coastal radar systems; and purchase of 155 mm self-propelled guns. With regard to burdensharing, the ROK appears committed to the current special measures agreement but is working with Washington to shift some of its contributions from dollars to won to compensate for a reduced dollar/won exchange rate.

So far, the current Asian financial crisis has had little, if any, effect on Japan's defense modernization program. However, since the early 1990's, Japan's own economic problems have slowed the rate of growth of the military budget. Because of a government-wide austerity program initiated last summer, the Japan Self-Defense Force faced unprecedented budget cuts—over \$8 billion from the remaining three years of its current five-year plan (1996–2000). There is concern as to the potential impact of a prolonged economic slump on long-term Japan Self-Defense Force capabilities. All signs indicate however that Japan, a major purchaser of U.S. equipment, will meet its remaining contract commitments and overall host nation support obligations.

The financial crisis has also caused Thailand, Malaysia, Indonesia, and the Philippines to delay or curtail force modernization programs. To date, Thailand is the only one of these countries to request the termination of a major foreign military sale program, the purchase of F/A–18 aircraft.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

ASIAN FINANCIAL CRISIS

Question. We have all followed the Asian financial crisis closely, given its potential negative impact on the U.S. and global economy. However, the crisis is also generating considerable social unrest in the affected nations as domestic prices surge and unemployment rises in the wake of their currencies' collapse. Some analysts have warned that this unrest could lead to greater ethnic strife and even possible civil war unless conditions improve in the near future.

In your estimate, how much of a security threat does Asia's financial crisis pose in this crucial region? Do you think there is any possibility of civil war in any affected Asian nation?

Answer. With the notable exception of Indonesia, the financial troubles sweeping key Southeast Asian nations have ushered in a period of stringent defense austerity and will likely erode defense capabilities, but internal security mechanisms should remain intact and largely unaffected. Rising inflation and unemployment have increased discontent and domestic political strains, but serious unrest is generally unlikely in most of the regional states.

Expected leadership changes should remain largely constitutional and devoid of civil violence or military intervention in view of the existing political systems in most of the affected states. Although at this point a civil war is unlikely, Indonesia appears headed toward a downward spiral of economic turmoil that probably will bring further leadership, political, and social change.

Question. What can Congress do to help improve the situation—could approval of IMF funding play an important role in boosting confidence in the region?

Answer. Approval of International Monetary fund (IMF) support can play an important role in boosting confidence in the region. Regional leaders, including key military figures, realize a drawdown of international support to the current crisis places regional growth and stability at risk. Without IMF support, economic and social conditions may deteriorate, military attention may be drawn to internal problems, and regional security cooperation could suffer.

My recent visits to countries in the region have indicated that relevant defense establishments recognize the dire short-term need for IMF programs and realize the importance of structural Asian Financial Crisis reforms to long-term prosperity.

Across the board, the militaries recognize the need to allow government and financial institutions to solve the current economic crisis. This professional willingness to "stay in the barracks" and take the IMF medicine represents a positive trend in regional political development, and reinforces investor confidence in Asia's long-term growth potential.

Question. Is there any threat that the ongoing crisis could result in a broader regional conflict?

Answer. Currently, I do not believe that there is a serious risk of a broader conflict stemming from the regional economic downturn for either South Korea or the nations of Southeast Asia. However, the financial crisis has made these nations feel less secure than before, which has increased the general desire for a strong U.S. presence in the region. If the countries in the region could find Asian-centered solutions to their mutual economic suffering, they could actually enhance security ties among their nations. The uncertain outlook in Indonesia has raised concern among its immediate neighbors. Singapore and Malaysia fear widespread economic disruption and refugee outflows because of the political and social turmoil. Both nations have responded with financial support and public backing for Jakarta's policies. It

is important for the Congress to be aware of the support and endorsement by Asian nations for U.S. underwriting of regional security.

READINESS

Question. What do your latest data show about retention of basic infantrymen, mechanics, cooks, and pilots? Is it getting better or worse? Is it better or worse for married personnel? With families? What are the socio-economic profiles of the people leaving? Staying? Or, do you not have these kinds of data? Would it help?

Answer. U.S. Pacific Command (USPACOM) does not have a database to provide the answers to these questions. Service headquarters collect, track, and analyze retention data, sharing the results with USPACOM and the other Combatant Commanders. Retention is based on a number of complex factors. Office of the Secretary of Defense (OSD), the Joint Staff, and the Services are now conducting more detailed analyses of retention trends, including examination of potentially significant demographic groups and influencing factors. We look forward to seeing the results of these examinations which should lead to a better understanding of what drives retention and what array of compensation, benefits, and quality of life programs are necessary to achieve and maintain desired levels of retention of the right personnel.

Question. What are the specific complaints of people leaving your command? What are the reasons for staying of the people who stay? Or, do you not get these kinds of data?

Answer. The Services track the reasons for retention and non-retention of personnel. We work closely with the Services to monitor retention and identify any areas with the potential to negatively impact U.S. Pacific Command (USPACOM) readiness. At this time, USPACOM does not have any unique issues. The advent of the recent decline in retention rates with the Services has caused Under Secretary of Defense (Personnel and Readiness), the Joint Staff, and the Services to begin more in-depth examination of retention trends and projections. We await the results of the efforts and will engage with the Office of the Secretary of Defense (OSD), the Joint Staff, and the Services to ensure that readiness within USPACOM continues to be met.

Additionally, the Services believe that the reduced incentive of the 1986 Military Retirement Reform Act's retirement compensation may be a partial cause of the reduced retention the Services are experiencing. The OSD, the Joint Staff, and the Services are currently studying the impact of the military retirement systems on retention.

Question. Which of your "quality of life" programs are working? Which are not? Which generate the best pay-off in terms of retention? Please provide the data and analysis to substantiate your answer, or are you using judgement or anecdotal evidence to assess the degrees of success or failure?

Answer. Though we focus heavily on quality of life issues for the well being and the readiness of our forces, we work with the Service Chiefs who are responsible for budgeting and evaluation of the programs. Our experiences in U.S. Pacific Command (USPACOM) are not unique. The Services report that anecdotal evidence suggests educational benefits, medical and dental health care, fitness and recreational activities, commissaries, and exchanges are quality of life programs that have a positive influence on retention. Retirement may be a program that is not working in terms of its influence on retention. We, along with the Services suspect that the 1986 Military Retirement Reform Act retirement system is contributing to reduced retention. The Office of the Secretary of Defense, the Joint Staff, and the Services are currently studying the impact of the reduced military retirement system's impact on service members' career retention decisions. In the view of many in our area of responsibility, with the exception of Korea and Hawaii, building of new housing for first-term enlisted is approaching a point of diminishing return for quality of life and retention.

Question. Do you collect or receive data about family and substance abuse in your command?

Answer. The methods for collection of family and substance abuse within the Pacific Theater vary by Service. The Department of Defense is in the process of developing a comprehensive database for Family Advocacy (child abuse and neglect and spouse abuse) cases. The Office of the Assistant Secretary of Defense (OASD) for Family Policy, Support, and Services (OFPS&S), the Defense Manpower Data Center (DMDC), and the Military Services Family Advocacy Program, are implementing Central Registries which have common guidelines, requirements, and procedures for data collection, analysis, and distribution. The military Services have submitted relevant data to DOD. Retrieval of U.S. Pacific Command (USPACOM) specific data

is not yet possible. Commencing in fiscal year 1998, the DMDC will make such data retrieval possible.

Substance abuse data is collected by each of the Component Services within USPACOM. The Army, Air Force, and Marine Corps collect the data within the theater, provide it to a Central Registry within their respective services, and receive a summary of the results for their forces. Our Navy component, Pacific Fleet (PACFLT), however, collects, compiles, and analyzes substance abuse data for PACFLT forces, as well as forwarding it to a Central Registry. Urinalysis results comprise the primary data collected.

Question. What changes have been occurring in spouse, child, and substance abuse for the past two years? Please differentiate between officers and enlisted, length of service, and among major military specialties and PERSTEMPO rates.

Answer. Specific data on spouse, child, and substance abuse is maintained by each Service. Differences in how each Service defines and uses the data reported make it difficult to aggregate DOD-wide. We understand that Office of the Assistant Secretary of Defense (Family Policy, Support, and Services), the Defense Manpower Data Center, and the Services are finalizing a common comprehensive database that will provide DOD-wide data on Family Advocacy by more specific demographic groupings to include geographical areas such as U.S. Pacific Command (USPACOM).

Within our area of responsibility, there has not been any statistically significant change in our data on these abuses. Though a single incident is one too many, the rate for our population remains small and cannot be correlated to any particular causal factor.

Question. What is the role of the current high personnel tempo (PERSTEMPO) in any changes in family or substance abuse? Please provide copies of any analysis you have of the relationship.

Answer. Analysis of the potential correlation between PERSTEMPO rates and changes in family or substance abuse has not been accomplished. Additionally, PERSTEMPO varies for the different Services. For the Navy and Marine Corps, it has not increased because rotational deployment patterns have remained constant. However, the increase in the rotational assignments within the Army and Air Force has increased the amount of family separation our soldiers and airmen are experiencing since the drawdown.

Question. Do you have confidence that the Armed Services of DOD generate adequate data and analysis about readiness and quality of life issues?

Answer. The Armed Services make diligent and reliable efforts to support the decision-makers at all levels, from theater to the Department of Defense and the Joint Chiefs of Staff, by providing timely data and analysis about readiness and quality of life issues. In my view, our readiness data does not yet present an actionable picture.

Let me point out, however, that understanding and measuring readiness, and to a certain extent quality of life, is complex and difficult, particularly when information is aggregated at the theater and national levels. This aggregation process sometimes obscures pockets of lower readiness in the force, which we often hear or read about as anecdotes.

Our readiness reporting systems are evolving as information technology improvements are adapted to the challenge of measuring and understanding readiness. Our senior military leadership is committed to improving those systems to provide a clearer picture of readiness.

Areas where I believe we can make the greatest strides are: (1) refining readiness benchmarks, (2) better distinguishing between subjective and objective assessments (both are needed) (3) improving predictive tools, and (4) developing tools to link tactical readiness indicators to supply, maintenance, manpower, and training events. Finally, at the theater level, we need to find the right tools to merge service and joint reporting systems to give us greater fidelity in total theater readiness.

Similarly, quantifying the impact of quality of life programs is complex and challenging. Differences in Service programs and resource requirements complicate comparison between Services. Through close coordination with U.S. Pacific Command Component and Sub-Unified Commanders, those quality of life issues most critical to the well being and readiness of our service personnel and their families are being monitored, examined, and addressed.

Question. Do you have confidence that the information and analysis you receive is accurate and valid?

Answer. The readiness information and analysis I receive is accurate and valid, though generated by an imperfect system, and therefore lacks sufficient depth and breadth to meet the needs of all decision makers.

Our current "readiness system" is in fact two separate systems, designed at different times for different purposes. The Status of Resources and Training System

(SORTS) measures and reports on unit level sufficiency of people, training, equipment and supplies. It is an objective system.

The Joint Monthly Readiness Review (JMRR), a subjective system, assesses military capabilities in terms of broad functional areas, such as logistics, mobility, intelligence and communications. Because one is subjective and the other objective, it is difficult to get the whole readiness picture, except when they are tempered and augmented by commander's judgment.

Among the most common reasons for questioning the products of our readiness system are the many anecdotes we hear. These typically highlight a significant unit level deficiency in a warfare capability which, when viewed at the theater or higher levels, is within historic norms. These "pockets of 'unreadiness'" are obscured because of the way we aggregate data at each successively higher level. What may be obvious to an individual commander loses visibility when the vantage point is four levels higher.

The effects of aggregation are but one aspect of readiness assessment in need of remedy. The Joint Staff, along with the staffs of the unified CINC's, are currently addressing such issues as common terminology and common measures of service PERSTEMPO.

Accurately measuring and assessing readiness is a difficult task. Our system is not perfect, but many are trying to improve it. I have attached a paper that offers additional thoughts on the topic for your use.

MAY 15, 1998.

UNDERSTANDING READINESS * * *

Introduction

High on the nation's defense agenda is the question of military readiness. It has been the subject of Administration and Congressional attention as well as extensive media coverage. But, what is readiness and how is it measured? This article steps outside the Pentagon's framework for thinking about readiness and provides a plain English perspective.

What is readiness and how is it measured?

Readiness can be defined as the nation's ability to have the right forces in the right place at the right time to fight the right war. It consists of seven things; in principle, measuring readiness in each of these areas is a straightforward task:

Qualified people.—For each unit, we count the number of specialists on hand—pilots, infantrymen, mechanics, etc.—and compare those numbers to the numbers each unit needs.

Combat-capable hardware and technology.—We compare the capabilities of U.S. military hardware—ships, tanks, aircraft, etc.—to those of potential adversaries.

Appropriate levels of maintenance, supplies, and spare parts.—We track the extent to which hardware is in a "ready to go" maintenance status. In simple terms, are the ships ready for sea, can the aircraft fly, can the tanks shoot, and are adequate supplies and spare parts on hand?

Training.—We track the amounts and types of training our forces have received.

Tactics, techniques, and procedures.—We ask ourselves, "do we have tactics, techniques, and procedures that fully exploit the capabilities of our hardware and our people?"

Transportation and communication.—We ask ourselves if we can move our forces in a timely manner to wherever they might be needed and if we can communicate with them once they are deployed.

Infrastructure.—We track the extent to which our bases, hangars, maintenance depots, fuel farms, training ranges, etc. are in an "up" status, lest we erode our ability to do maintenance, train our forces, and keep our forces supplied.

Readiness exists on multiple levels

Readiness exists at tactical, operational, and strategic levels within our forces.

At the tactical level, the question is: are our smallest military units—squadrons, battalions, ships—ready to fight? Tactical readiness is the responsibility of the Army, Air Force, Navy, and Marine Corps. The armed services give their squadrons, battalions, ships, etc., the people, hardware, training opportunities, and funds to attain readiness standards that the services define for these units.

There are two forms of operational readiness: "service" and "joint."

—Service operational readiness is the ability of the individual tactical units to form larger, operational-level fighting units such as wings, battle groups, brigades and divisions, Air Expeditionary Forces, Marine Expeditionary Units, etc. The services are responsible for providing the funds and training environments for this form of readiness.

—Joint operational readiness reflects the ability of operational-level fighting units of the individual services to “integrate and synchronize,” i.e., to operate in cohesive, coordinated ways with the fighting units of other services (as well as with forces of other nations). This form of readiness is the responsibility of the unified Commanders-in-Chief (CINC’s).

Estimating the service operational readiness of units involves “aggregating” the readiness data of tactical units. The complexity in joint operational readiness comes when we try not only to aggregate the readiness data of tactical units from a single service but also aggregate the readiness data of operational units from two or more services. It is possible for our forces as a whole to be in a high state of readiness, even though some individual units are not at peak readiness.

Strategic readiness combines tactical and operational readiness with all of the additional intelligence, logistics, command-and-control, and transportation systems needed to form a joint warfighting force. It also comprises the readiness of the CINC’s staffs and other federal agencies and departments necessary to put the right forces in the right place at the right time to fight the right war.

In general, strategic readiness is measured against a large-scale scenario, such as the nation’s ability to fight and win two major theater wars. The Chairman of the Joint Chiefs of Staff is the catalyst who defines the benchmarks for strategic readiness.

To measure strategic readiness, tactical and operational readiness data must be aggregated even further and combined with other data. At this stage, the data for the force as a whole will often obscure the readiness of individual units, even if they are experiencing significant readiness shortfalls.

Why is measuring readiness difficult?

There are five reasons why measuring readiness is easier said than done.

- Readiness depends on the “benchmarks” against which we measure our forces, such as whether they can fight two major theater wars nearly simultaneously. Different benchmarks will yield different results.
- Many aspects of our readiness measuring system rely on subjective judgments.
- An automated system that links tactical readiness data to joint operational and strategic readiness data does not exist.
- There is no simple equation for “aggregating” readiness data from one level up to the next level.
- We also factor in “prudent risk,” e.g., the chances of a crisis occurring.

What are the implications?

The discussion above is perhaps a start to what may be a better way of understanding and measuring readiness. Clearly it needs further development, but this view has the potential to provide much more useful measurement of military readiness.

READINESS

Question. Do you have confidence that complete, accurate, and valid information is routinely made available to decision-makers in the Office of Secretary of Defense and the Joint Chiefs of Staff by the military services and by the civilian bureaucracy?

Answer. A system that provides complete, accurate and valid information implies a perfect system. We do not have a perfect readiness reporting system but we have a good one and it is getting better.

A great deal of data relating to readiness is available. The challenge is to select the correct data such that it provides meaningful information. The Chairman of the Joint Chiefs of Staff recently said that he wants “to make certain that in this increasingly constrained resource environment our Joint Readiness Reporting Systems accurately reflect our posture.” We have taken the Chairman’s “focus item” to heart, and continue to make improvements.

We currently assess readiness through the vehicles of the Status of Resources and Training System (SORTS) and the Joint Monthly Readiness Review (JMRR), briefly described in the previous answer. These systems, though individually useful, were not designed to work together, and their merger produces a whole no greater than the sum of the parts.

Recognizing these limitations, I believe complete, accurate and valid information is routinely made available to decision makers, though our efforts to improve its quality continue.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

ASIA-PACIFIC CENTER

Question. Admiral Prueher, I understand the Authorization Committees are likely to eliminate your requested authority to reimburse poorer countries who send students to the Asia-Pacific Center. Can you explain the importance of receiving legislative authority for this?

Answer. Public Law 105-56, Section 8094 contains language that allows the Center to waive reimbursement for the cost of conferences, seminars, and courses of instruction for participants of foreign countries when the Secretary of Defense determines such participation is in national security interests and these costs are paid with appropriations already available to the Center. This authority is due to expire September 30, 1998. Permanent authorization is being sought.

This authority is crucial to the Center's ability to attract participants from both developing and developed countries in the region. Since it permits waiving class-related tuition or "platform" charges for all participants, it acts as a strong incentive for not only developing, but also developed countries to attend. Participation by nations such as Australia, New Zealand and Japan is clearly in the best interests of the United States since they typically exercise a leadership role in the region. This authority also allows waiving reimbursement for personal expenses of approved developing countries, and therefore enhances the authority granted by 10 U.S.C. 1051.

Identical language was previously enacted for the Center in the Fiscal Year 1997 Department of Defense (DOD) Appropriations Act at Public Law 104-208, Section 8121. The provision mirrors legislation previously granted to the George C. Marshall European Center for Security Studies in Public Law 103-337, Section 1306(b). Enactment of the provision imposes no increase in DOD budgetary requirements.

Question. Admiral, how is the Asia-Pacific Center aiding you in carrying out your cooperative engagement strategy?

Answer. The Asia-Pacific Center directly contributes to the U.S. Pacific Command (USCINCPAC) strategy by fostering understanding and cooperation through the study of security-related issues among military and civilian representatives of the United States and other Asia-Pacific nations. The Academic Department provides a focal point where military and civilian officials gather to exchange ideas, explore pressing issues, and achieve a greater understanding of the challenges that shape the security environment of the Asia-Pacific region.

The Center is presently conducting its fifth class in the College of Security Studies. During the twelve-week program in the College, the participants build human relationships and mutual understanding that will strengthen the foundation for security cooperation in the face of significant regional challenges. These challenges include: the tremendous diversity of cultures, political systems, and standards of living; historical animosities that continue to strain international relations; transnational security issues such as organized crime, terrorism, the drug trade, severe environmental degradation, and migration; the growing tension between the forces of globalization and ethnic nationalism, now dramatized by the economic crisis in Asia; and the absence of formal security arrangements to coordinate national security strategies and policies.

The Conference Division has conducted conferences and seminars with participants coming from all countries in the region. These conferences and seminars have addressed regional security issues ranging from Emerging Democracies to Environmental Issues. The conferences are designed to take on the emerging issues in the Asia-Pacific region and incorporate them into the USCINCPAC preventive defense strategy as well as the College of Security Studies curriculum. The program is extremely useful and responsive to USCINCPAC's emerging needs.

Question. Admiral Prueher, can you update the subcommittee on the reconstruction of the new Asia-Pacific Center?

Answer. Renovation of an existing Government facility on Fort DeRussy to accommodate the Asia-Pacific Center is proceeding on schedule, thanks to the February 25, 1998 restoration of fiscal year 1998 Military Construction (MILCON) funding in the Navy's budget. This restoration allows us to proceed to run the center most economically and avoid further rental of workspace.

Restoration of MILCON funding ensures continuation and full funding of the planning and design (P&D) effort. This effort began September 30, 1997 when the basic architectural and engineering contract was awarded. As of May 18, 1998, 35 percent of the design effort was completed; the final design phase will commence July 1998.

The Asia-Pacific Center is expected to assume responsibility for the Government facility from the Army by June 1, 1998.

The demolition contract for removal of all non-load-bearing interior walls within the existing Government facility is expected to be awarded no later than September 15, 1998, with demolition completed by January 28, 1999. The contract for renovation, which will overlap demolition, should be awarded December 14, 1998.

While total renovation is not expected to be completed until August 2000, the renovation effort will be phased, allowing employees to vacate the current facility and relocate to the newly renovated Government facility a floor at a time. Under this phased approach, we will begin relocating into the building with executive and administrative support staffs in April 2000.

Question. The Marshall Center has received unfavorable reports about its financial accountability. What steps will you take to ensure that you do not experience the same problems?

Answer. We have already taken many steps to ensure financial accountability in Asia-Pacific Center operations. Most notable is the explicit incorporation of recommendations and lessons learned from Marshall Center audit reports during the initial Asia-Pacific Center implementation plan development. This planning spanned more than a year and involved active participation and oversight by senior U.S. Pacific Command (USCINCPAC) staff. It is, in fact, this close relationship between USCINCPAC and the Asia-Pacific Center, both geographically and operationally, that has fostered effective communications and an atmosphere of transparency and mutual support. This is an advantage not as readily attainable by the Marshall Center because of its distance from Headquarters, European Command. Additionally, we are working in close concert with the Undersecretary of Defense for Policy for management of the center.

U.S. Pacific Command retained oversight and decision-making authority for all major purchases through September 1997, at which time the Center became its own operating budget holder. However, even with this reduction in USCINCPAC oversight, the Asia-Pacific Center must still submit all purchases above \$2,500 through the Navy's Federal Industrial Supply Center at Pearl Harbor for review and processing.

In contrast to the Marshall Center, the Asia-Pacific Center's scope of operations is narrower, since it relies on contracted versus government space for participant accommodations and conferencing facilities. This reduces government overhead and simplifies management's responsibilities.

As a further safeguard, the Center implemented early on an aggressive Internal Management Control program that emphasizes continuous management training in vulnerability assessment and risk reduction. Management-level awareness has been raised significantly as a result of this systematic process review.

SITUATION IN NORTH KOREA

Question. Admiral Prueher, the conditions in North Korea remain grim because of food shortages, economic isolation, and other factors. Can you tell us what the current status is and what concerns this presents for you as Commander in Chief, U.S. Pacific Command (USCINCPAC)?

Answer. The conditions in North Korea are severe. The combination of flood, drought, inadequate medical supplies and government mismanagement is causing large-scale human suffering.

The World Food Program (WFP) estimates that North Korea must rely on foreign food for most needs until the fall. Its current annual appeal for assistance calls for 650,000 metric tons of food aid. This will provide subsistence level support to an estimated 7.5 million of North Korea's most vulnerable—about one-third of the population—consisting of children and those cared for in hospitals and institutions. The aid deliveries are being timed to meet anticipated needs in spring and early summer.

My immediate concern is the instability that may stem from these conditions. It is difficult to predict with any degree of accuracy how this instability may play out. There is a wide range of possible outcomes—anything from no change in status to a military response, including an attack on the Republic of Korea (ROK). While economic conditions are eroding North Korean military capabilities, they remain formidable and have the ability to inflict heavy casualties on ROK and U.S. forces. We must be prepared to respond in this worst case scenario.

LANDMINES

Question. Admiral, I am told the Administration is examining a new policy regarding landmines. Can you comment from a military point of view on the continued requirement for landmines—especially in Korea?

Answer. No where else today do U.S. forces face such a credible threat as on the Korean Peninsula. Mines are integral to blunting a North Korean attack and buying time for the deployment of U.S. forces for reinforcement and counterattack. Without the ability to integrate anti-personnel landmines in planned barriers as well as hasty protective minefields, Combined Forces Command's plan for the defense of South Korea is at greater risk for ground forces' casualties. As a force multiplier, mines offset shortages in troops and material, buy time for the defender, and allow reduced force structure under the armistice. Additionally, the use of mines in Korea is instrumental in protecting the population of Seoul.

NORTH KOREAN BALLISTIC MISSILE THREAT

Question. Admiral Prueher, recently I cosponsored a bill with Senator Cochran in favor of deploying a national missile defense primarily because of my concern with developments in North Korea. Are you concerned that North Korean ballistic missiles could someday soon reach Honolulu or Anchorage?

Answer. [Deleted.]

Question. Admiral, considering the difficulties with the North Korean economic situation, how serious a threat does the future development of an indigenously designed, intercontinental-range ballistic missile (ICBM) appear to be?

Answer. [Deleted.]

Despite the country's economic difficulties, long-range missiles are a high priority for the government and development of the systems will continue until they are operational. The North has openly stated its intention to continue its missile development program, both for national defense and for much needed foreign exchange.

SUBCOMMITTEE RECESS

Senator STEVENS. Thank you very much. The subcommittee will stand in recess.

Admiral PRUEHER. Thanks very much.

[Whereupon, at 11:53 a.m., Wednesday, May 6, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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**DEPARTMENT OF DEFENSE APPROPRIATIONS
FOR FISCAL YEAR 1999**

MONDAY, MAY 11, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 2:02 p.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.
Present: Senators Stevens, Domenici, and Inouye.

NONDEPARTMENTAL WITNESSES

STATEMENT OF SANDRA C. RAYMOND, EXECUTIVE DIRECTOR, NATIONAL OSTEOPOROSIS FOUNDATION

ACCOMPANIED BY CHARLES K. SCOTT, II, COMMANDER, DEPARTMENT OF THE NAVY

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Let me welcome all of the witnesses. There are a large number of organizations who have requested the opportunity to appear before us this year. And we do appreciate your interest in the bill.

To ensure that all of you who have asked to speak get a chance to speak today, we have to ask that you limit your comments to 4 minutes. But we do have your statements, and I want you to know we really do go through them. Your statements will each be printed in the record in their entirety.

I think many witnesses today will raise concerns about defense health, the total health program of the Department of Defense [DOD]. Senator Inouye and I are working to make sure that all active and retired military personnel and their dependents receive the best medical care we can possibly make available. The subcommittee will markup the 1999 defense appropriations bill on Tuesday, June 2nd, and your comments today will be considered as we seek to allocate the funds that are available to us this year for so many competing priorities for the year 1999.

Now, let me thank you very much for coming and tell you that Senator Inouye is at another meeting. He will come here at 3:15, and I will leave to go to another meeting. But we are going to each chair half of the session today.

Senator Domenici, do you have any comments, sir?

Senator DOMENICI. No, thank you, Mr. Chairman.

Senator STEVENS. We are glad to see you here.

The first witness is Sandra Raymond, to be followed by Chief Master Sergeant Krebs. I assume someone has the schedule out there, so you all know what your schedule is.

Fine, thank you very much. Good afternoon, Ms. Raymond.

Ms. RAYMOND. Good afternoon, Mr. Chairman. I want to thank you and your colleagues for including a \$10 million appropriation for bone disease research in the fiscal year 1997 appropriations bill. And I will be very brief.

I want to say that the grants that you made possible through your appropriation have examined the issues which are directly relevant and affect the very readiness of military personnel, DOD's most precious asset. The outcomes of the DOD bone research program may well change the way in which our fighting force is fed, is trained and receives health care services. This is work that has to be done by DOD.

It never has been done by any other branch of government in the past, and it will not be done in the future by any other branch of government. Because, Mr. Chairman, unfortunately, many of the young people who come to military service are sedentary prior to entering the service. Their bodies, especially their bones, are not used to the kinds of intensive physical exercise demanded of them during boot camp. And consequently, they sustain numerous injuries.

Stress fractures are the most prevalent of the injuries that they suffer. Both men and women in the military suffer from stress fractures. The minimum time away is 6 to 8 weeks. But fractures are slow to heal, and it can take up to 3 months. The bottom line is that stress fractures do not always heal. Untreated and repeated stress fractures can lead to a complete fracture.

This type of injury contributes to a high rate of attrition during training. For example, the attrition rate in 1 year was 44 percent of female Marine candidates at Quantico. But one training intervention of 22,000 marines showed that as much as \$4.5 million could be saved by reducing stress fractures in the military. And that was only 22,000 marines.

It has been clearly demonstrated that young women are not getting enough calcium and are not getting enough exercise. Their bones are thinning at a much earlier age than we previously thought. And now, in recent studies, we have learned that most military women do not consume enough food to meet their nutritional requirements. They do not consume enough calcium.

These deficiencies that occur, either before entering the military or after entering the military, put these women at high risk for these fractures certainly during combat and throughout life. Strenuous training can also cause bone loss and fractures because their estrogen levels diminish with excessive training. And estrogen is known to be the key ingredient of the calcium that is absorbed into the bones. So the loss of estrogen causes these stress fractures, as well.

So how the military addresses these questions regarding bone health is solely dependent on the bone health research program at DOD. Therefore, it is urgent that you continue to build a bone disease research program. And we ask you to appropriate \$20 million in the fiscal year 1999 budget.

PREPARED STATEMENT

Now, I want to turn the microphone over to Commander Scott, who is going to tell you firsthand how bone disease has interrupted his exemplary military service and how costly this has been to him, to his family and to DOD.

[The statement follows:]

PREPARED STATEMENT OF SANDRA C. RAYMOND

Mr. Chairman and Members of the Subcommittee, on behalf of the National Coalition for Osteoporosis and Related Bone Diseases, we want to thank you for giving us the opportunity to discuss bone disease research funding in fiscal year 1999. My name is Sandra Raymond, Executive Director of the National Osteoporosis Foundation (NOF) and I am accompanied by Commander Charles Scott with the Department of Navy. Commander Scott currently suffers from multiple myeloma, a complex cancer of the bone marrow which invades and destroys bone. He joins me today to speak from a patient's perspective. We are appearing before your Subcommittee with the hope of realizing one common goal of improving bone health by reducing the incidence of osteoporosis, Paget's disease of bone, Osteogenesis Imperfecta, multiple myeloma, and other bone diseases. We believe we make a convincing case for why the continuation of the Department of Defense (DOD) osteoporosis and related bone diseases program is critical to our national security. We also believe that we need research support for the special health related problems of the military which are not addressed by the National Institutes of Health budget, such as stress fractures and juvenile osteoporosis.

First, on behalf of the entire bone community, we want to thank you, Mr. Chairman, and your colleagues on the Subcommittee for the \$10 million you appropriated for bone research in the fiscal year 1997 DOD appropriations bill. It was truly appreciated and has been put to good use. Out of the \$10 million appropriated, \$9.7 million was awarded to fund grants. The remainder was allocated to the Small Business Innovative Research fund grants. We believe that the scientific community has reached an exciting threshold. The timing of this program and the availability of additional funds for bone research are fortuitous. The genes that would predict bone density are being discovered but we do not know what those genes do, how they do it or how genetic tests could be used to predict and prevent diseases. The Department of Defense resource could lead to these exciting discoveries which, in turn, would aid in prevention of bone diseases.

There are many important diseases which deserve attention and funding under the Department of Defense budget, but we want to make Congress particularly aware of the bone diseases which frequently do not get the attention they deserve. We also want to educate Members on the newest revelations surrounding the correlations between bone disease and cancer and more recently, depression. What we can do to prevent and treat these diseases that affect our military population are questions we believe need to be addressed now.

The Military Health Services System serves 8.4 million, including active and retired military personnel and their dependents. In fiscal year 1995, program costs rose to \$15.3 billion. The economic burden of health care costs from this range of chronic diseases is staggering. For example, the combined annual cost to society of medical care and lost wages for osteoporosis alone is estimated at \$13 billion. Despite these overwhelming figures, osteoporosis and related bone diseases are preventable if measures are taken before an individual reaches the mid-30's—which encompasses the time period that many men and women spend in the military. Skeletal development in average healthy individuals is maximal at age 25 in women and 30 to 35 in men.

The increasing number of women in the military presents new health challenges, some of which are directly related to osteoporosis. In fact, a high percentage of women in the military are African American and very little information exists regarding this group of women who suffer from eating disorders as well as other health problems. Once bone is lost, it can never be fully replaced, so prevention is of the utmost importance. It is essential that young men and women in the military build up their bone mass to maximum capacity in order to be well equipped throughout their life span. Understanding the correlation between bone loss and excessive exercise, amenorrhea, depression, and smoking in military personnel will only serve to strengthen the overall readiness of the defense system as well as generate significant cost savings through reduction of stress fractures.

The DOD is developing its own focus on bone research with relevance to the military age population. This special focus is welcomed by the bone community as it is not duplicating the important work being funded by the National Institutes of Health. Much of our current knowledge of bone diseases has been derived from studying postmenopausal white women. Our understanding of bone metabolism would be greatly strengthened by this new DOD research emphasis. The DOD Bone Research Program aims to enhance military readiness by improving bone health of young men and women.

One important goal of the DOD program is to enhance military readiness by reducing the incidence of fractures which incur costs and lost time, during physically intensive training. Bone fractures are a major problem for the military population. One training intervention research project among 22,000 recruits in the U.S. Marine Corp in San Diego showed that as much as \$4.5 million could be saved by reducing stress fractures. We need research in determining approaches to making these fractures less common. This is a problem for both sexes, but it is particularly important for women. This is relevant now because there are more women in the military and women have lower bone mass than men which makes them more susceptible to fractures. Research should be direct to finding ways of increasing bone mass to prevent fractures.

Military training programs require recruits to perform at a much higher physical stress level than is required by civilian life. Some civilians who become soldiers have stress fractures of the lower limbs only when performing their new duties. Those soldiers apparently suffer from "situational osteoporosis" in that their new bones are not strong enough to sustain their new intended use.

Stress fractures are a problem in 10–15 percent of women recruits during the 8 weeks of basic training. With the increasing number of women in the military, the bone health of female recruits becomes a concern of growing proportions if they are to serve at maximum capacity and strength. According to the Army, the minimum time away from significant duty for a male or female soldier who develops a stress fracture is 6–8 weeks. Full recovery time for those with stress fractures generally takes as long as 12 weeks. Stress fractures are among the most frequent injuries that take men and women in the Army off duty.

The leadership of the Army's osteoporosis and related bone diseases research project is aware that achieving bone strength takes more than measuring the bone density of potential recruits and screening out the ones with low bone mass. To advance the understanding of overall bone health of military men and women, we must develop the ability to predict susceptibility to stress fractures through studying and environmental influences.

To achieve peak bone mass as a young adult and retain the inner structural strength that bone provides, bone weakness must be attacked from several fronts. Important research questions must be answered. For example, how do different biochemical forces such as weight-bearing and muscle development impact bone cells? How can we detect the microscopic bone damage that builds up during training and leads to stress fractures? What is the clinical physiological impact of physical fitness and diet on peak bone mass? To what degree do environmental factors such as smoking, carbonated beverages and alcohol intake relate to the achievement and retention of peak bone mass? What are the predictors of fracture risk such as genetics, physical characteristics and hormonal factors? What are the best prevention, diagnostic and treatment strategies for the young population?

The military also has an exceptional opportunity to conduct longitudinal studies of bone physiology in young people because it retains individuals from ages 18 through 22. This is an opportunity which should be fully utilized through cooperation between military and civilian scientists. Nonetheless, while the military is primarily focused on this age group, it is also concerned about the health of its military families and retirees who will also benefit from the basic and clinical research performed under the guidance of the DOD. And now I'd like to introduce Commander Charles Scott who will explain how multiple myeloma, a bone disease, has affected his capacity to serve.

My name is Commander Charles Scott. I am a Naval Aviator, Experimental Test Pilot, Aeronautical Engineer and Persian Gulf Veteran. In December 1996, after suffering a broken back, I was diagnosed with multiple myeloma which is a complex cancer of the bone marrow that invades and destroys bone. As a result of this disease I have severe osteoporosis. Each year 14,000 new cases of myeloma are diagnosed. The occurrence of myeloma has increased dramatically in the past decade. Some experts believe that the increase in incidence of multiple myeloma may be related to toxic exposure, viral links, and chemical pollutants. The average life expectancy from the time of diagnosis is three and one half years; there is no known cure.

I demonstrate the tangible cost of bone disease to the military. The Navy has paid over nine million dollars to train me in the highly technical fields in which I am qualified. This investment by the tax payers of this country is in jeopardy due to my bone disease and cancer. We are asking for \$20 million for bone disease research. If the research resulting from the DOD Bone Health and Military Medical Readiness Research Program could help me recover my health and put me back into a flying status, nearly one half of the \$20 million we are requesting from you today could be recovered.

By understanding the mechanisms of bone destruction in myeloma, we can learn how the dynamic equilibrium of bone damage and bone healing actually works. In myeloma patients, bone damage is dramatically increased but perhaps more importantly bone repair is almost completely blocked. Myeloma bone disease cripples 50,000 Americans in the prime of their lives. All Americans will benefit from increased knowledge of what can make bones heal and become stronger. Research focusing on the reduction of tumor burden, causative factors and better treatments will benefit everyone suffering the debilitating effects of bone disease and myeloma.

Reduction in military readiness, our ability to fight and win wars, runs the gambit from the new recruit who fails to complete basic training due to a bone fracture to the seasoned veteran like me whose career is cut short by a disabling bone disease.

In conclusion, it may well be that what we learn from DOD research will greatly contribute to bringing bone diseases under control because osteoporosis and other related bone diseases such as Paget's disease, osteogenesis imperfecta and multiple myeloma are serious threats to public health affecting an estimated 30 million Americans. These diseases cause loss of independence, disability, pain and, in some cases, death. Bone diseases affect women, men, and children of all ages. From infancy to the oldest old, these diseases profoundly alter the quality of life for millions of Americans. The military life asks much more of its people in a physical sense than does civilian life and it must, therefore, invest in discovering the means to achieve top fitness. We urge you to continue your strong support for bone disease research and ask that you provide \$20 million in funding for DOD's program in fiscal year 1999.

Mr. Chairman, the total defense which this nation seeks, involves a great deal more than building airplanes, ships, guns and bombs. We cannot be a strong Nation without strong bones. By discovering how we can build bone mass to peak capacity in our young recruits, we will not only build strong military, we will build a strong nation ready to withstand the stresses of an extended life span. And so we must recruit not only men, women, and materials but also knowledge and science in the service of national strength.

Thank you. We will be happy to answer any questions.

Commander SCOTT. Thank you. My name is Commander Charles Scott. I am a Naval aviator, experimental test pilot, aeronautical engineer, and Persian Gulf veteran.

In December 1996, after suffering a broken back, I was diagnosed with multiple myeloma, which is a complex cancer of the bone marrow that invades and destroys bone. As a result of this disease, I have severe osteoporosis. Each year, 14,000 new cases of myeloma are diagnosed. The occurrence of myeloma has increased dramatically in the past decade.

Some experts believe that the increased incidence of myeloma may be related to toxic exposure, a viral link or chemical pollutants. The average life expectancy from the time of diagnosis is 3½ years. There is no known cure.

I demonstrate the tangible cost of bone disease to the military. The Navy has paid over \$9 million to train me in the highly technical fields in which I am qualified. This investment by the taxpayers of this country is in jeopardy due to my bone disease and cancer.

We are asking for \$20 million for bone disease research. If the research resulting from the Department of Defense Bone Health and Military Medical Readiness Research Program could help me recover my health and put me back into a flying status, nearly one-

half of the amount we are requesting from you today could be recovered.

By understanding the mechanisms of bone destruction in myeloma, we can learn how the dynamic equilibrium of bone damage and bone healing actually works. In myeloma patients, bone damage is dramatically increased. But, perhaps more importantly, bone repair is almost completely blocked.

Myeloma bone disease cripples 50,000 Americans in the prime of their lives. All Americans will benefit from the increased knowledge of what can make bones heal and become stronger.

Senator STEVENS. Thank you very much, Commander Scott. We appreciate your statement. And we will try to do our best.

Ms. RAYMOND. Thank you.

Senator STEVENS. There is a decreased amount available, in terms of outlays this year, but we will do our best. Thank you very much.

Ms. RAYMOND. Thank you.

Senator STEVENS. Now, Sergeant Joshua Krebs, representing the Air Force Sergeants Association.

Senator Inouye said he has come just because he is afraid I might be lonesome. [Laughter.]

Thank you, Sergeant.

STATEMENT OF JOSHUA W. KREBS, CHIEF MASTER SERGEANT, USAF (RETIRED), MANAGER, LEGISLATIVE AFFAIRS, AIR FORCE SERGEANTS ASSOCIATION

Sergeant KREBS. Thank you, sir.

Mr. Chairman, and distinguished committee members, on behalf of the members of the Air Force Sergeants Association [AFSA], thank you for this opportunity to present our views on funding for quality-of-life issues for fiscal year 1999.

The most essential element in defending this great Nation is quality people. We understand that budgetary considerations drive many decisions, but we ask that you protect and, where possible, expand quality-of-life benefits so important to our military members.

We urge you to provide a raise in military base pay that, as a minimum, keeps pace with the employment cost index. Several years ago, the Congress authorized the Department of Defense to extend the Women and Infant Children [WIC] and Food Stamp programs to members serving overseas. Due to bureaucratic infighting between the Department of Defense and the Department of Agriculture over responsibility for funding of these programs, this benefit is still not available to the junior enlisted members who need it.

AFSA asks that this committee include funding for these programs in the fiscal year 1999 Department of Defense appropriations bill.

Last year, the Senate took the lead in getting a medicare subvention demonstration project, where the Health Care Financing Administration will reimburse DOD for health care for medicare eligibles, enacted into law. This project will start to return the often disenfranchised medicare eligible military retirees to the military health system. But even if fully implemented, subvention will only care for those retirees living near bases.

This year, we urge the Senate to take the lead in providing an additional health care option for those over 65. AFSA members ask you to enact, as a minimum, a demonstration project to allow over-65 retirees to enroll in the Federal Employees Health Benefits Program.

Continued funding for community support activities has never been more important. As more and more enlisted families see both family members working, access to quality child care, such as provided by child development centers, is vital. Family support center programs provide development preparation for the entire family, family support during separations, and expert guidance when deployed members return with their families.

These and other family programs are critical components of maintaining readiness and managing the stresses of high PERSTEMPO for active and Reserve members and their families.

Mr. Chairman, we have touched on a few of the areas that need your attention. AFSA appreciates the difficulties that you face, and we thank you for this opportunity to share our thoughts on these important issues. We trust that you will do what is right for enlisted members, current and future, active and retired, and their families.

Thank you.

Senator STEVENS. Any questions, gentlemen?

[No response.]

Senator STEVENS. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF JOSHUA W. KREBS

Mr. Chairman and distinguished committee members, on behalf of the members of the Air Force Sergeants Association (AFSA), thank you for this opportunity to present our views on funding for quality-of-life issues that affect active, reserve component and retired enlisted members and their families. AFSA represents enlisted members of the Air Force, Air Force Reserve and Air National Guard—active, retired, and their family members.

The most essential element in defending this great nation is quality people. At a time when the nature of military service is changing, when the operations tempo is extremely taxing on the quality of lives of military members and their families, and when the administration forecasts further personnel cuts—while maintaining worldwide operations—we must make sure the needs of our current and past military members are met. Mr. Chairman, we understand that budgetary considerations drive many decisions, but we ask that you protect, and where possible expand, quality-of-life benefits so important to all military members.

COMPENSATION AND BENEFITS

Military base pay is tied to the Employment Cost Index (ECI). Yet to save money, current law limits pay raises to the ECI minus one-half of one percent. Again this year the administration has requested the full amount required by law—further eroding the value of military compensation. Sir, we urge you to provide funding for a raise in military base pay that, as a minimum, keeps pace with the ECI. Those wearing a uniform, whether be it on active duty, or in the reserve or guard, deserve no less.

Military members are frequently reassigned at the discretion of the government. Yet, despite the recent improvements in reimbursement rates, they still pay 26 to 33 cents of every dollar out of their own pockets for the cost of these moves. The situation for our most junior members is even more severe. We need to pay these members a temporary lodging expense (TLE) for their first permanent assignment move starting next year. These members incur the same expenses as do members on their second or subsequent move, yet they do not receive the same compensation. For example, an airman with a spouse and one child moving to Montgomery, Alabama, on his first move may experience temporary living expenses of \$75 to \$100

per day (for which there is currently no provision for reimbursement). Over a 10-day period, this could amount to \$1,000—nearly five weeks of the airman's basic pay. TLE, which reimburses up to \$110 per day for up to 10 days, would fully reimburse this airman and free his pay for other necessities.

The commissary is consistently rated as a top non-pay compensation benefit, yet every few years, some group challenges the commissary benefit. Enlisted people count on the savings from commissary purchases, up to 29 percent over commercial stores, to extend already-stretched income—partially offsetting lagging pay raises, inflation, and out-of-pocket housing and moving costs. To many young enlisted families, elimination of the commissary subsidy would have the same impact as a nine percent pay cut. We need to send a strong message to all current enlisted members that this vital benefit will be preserved. This important benefit should also be extended to the guard and reserve on a full-time basis. These members are on call 24 hours a day, 365 days a year to defend our country. Yet, we limit their opportunities to use the commissary—this is unfair and should stop!

Several years ago the Congress authorized the Department of Defense to extend the Women and Infant Children (WIC) and food stamp programs to members serving overseas. Due to bureaucratic infighting between the Department of Defense and the Department of Agriculture over responsibility for funding of these programs, this benefit is still not available to the junior-enlisted members who need it. AFSA asks that this committee including funding for these programs in the fiscal year 1999 Department of Defense Appropriations Bill.

HEALTH CARE

Last year, the Senate took the lead in getting a Medicare Subvention Demonstration Project (where the Health Care Financing Administration will reimburse DOD for health care for Medicare-eligibles) enacted into law. This project will start to return the often-disenfranchised Medicare-eligible military retirees to the military health service system. But even if fully implemented, subvention will only care for those retirees living within TRICARE catchment areas (near bases). This year, we again urge the Senate to take the lead in providing an additional health care option for those over-65. Include in this year's Department of Defense Authorization Bill, as a minimum, a demonstration project to allow over-65 retirees, as an option, to enroll in the Federal Employees Health Benefits Program. Many served our great nation in World War II and Korea. Frankly, many retirees feel that they "kept the faith," while the government has not.

For many years, health care concerns were strictly a retiree issue, but not anymore. As "small hospitals" are downsized to large clinics, active duty members must bear increased costs for health care for their dependents and must increasingly rely on DOD's TRICARE networks to provide health care. Not many years ago, it was very unusual for an active duty member to have to pay for health care for his or her dependents. This is a major quality-of-life issue for current military members and causes an unexpected financial burden for junior enlisted members. This same situation does not exist everywhere. For instance, if you are stationed in San Antonio, Texas, or Washington, D.C., this same level of care would be available at a military hospital. As military members move from location to location throughout the country, some are learning the hard way that there is not a consistent health care benefit for all beneficiaries.

When today's military members see what is happening to their health care, and then hear the "horror stories" about what has happened to the health care promise made to their predecessors, they surely must question what will be available for them in the future. This nation needs to provide a uniform, comprehensive health care benefit for all military members and their dependents, whether on active duty or retired.

In addition to expanding the health care options for Medicare-eligibles, TRICARE must be improved for all beneficiaries. As a minimum we ask that you:

- Establish improved payment levels and procedures to physicians so that they will participate in TRICARE.
- Provide viable options to TRICARE Prime. Start by restoring TRICARE Standard to the level it was originally intended—to cover 80 percent of medical costs for active duty dependents and 75 percent of the costs for retired members under age 65, and their dependents.
- Restore TRICARE Standard as a second payer when members have other insurance. Currently, TRICARE Standard will only reimburse the member if the other insurance reimburses at a lower rate than Standard.
- Provide health coverage, including access to the National Mail Order Pharmacy Program, to all military retirees and their dependents, regardless of age.

—Improve customer education. The rules are confusing. Let people know, in the simplest of terms, how and where they can get medical care

COMMUNITY SUPPORT

AFSA asks for your continued support for community support activities. As more and more enlisted families see both family members working, access to quality child care such as provided by child development centers becomes increasingly important. Other base facilities like libraries and physical fitness centers provide a sense of community to a base and also deserve continued funding.

As the nation's military moves from a forward-based force to a contingency-based force that deploys from bases in the United States, support programs to help military members and their families become increasingly important. These centers coordinate the efforts of in-house and base-level services in Family Readiness Programs. These programs provide deployment preparation for the entire family, family support during separations, and expert guidance when deployed members reunite with their families. These and other family programs are critical components of maintaining readiness and managing the stresses of high PERSTEMPO for active and Reserve members and their families. The importance of the Family Support Centers cannot be overstated, and they deserve full funding.

RETIREMENT SYSTEM AND BENEFITS

The military retirement system has changed three times—each time decreasing the value of the benefit. It was last changed in 1986 and now only provides retirement pay based on 40 percent of the high three years' monthly average of base pay, as compared to the previous 50 percent at 20 years of service. What effect do the 1986 changes in retired pay have on current enlisted retention? The current mid-career retention figures seem to indicate that the affected members are starting to "vote with their feet." It is time to relook this devaluation of the military retirement system and the effect it has on current retention and future readiness.

As we travel throughout the country and talk to guard and reserve members, many ask if their increased contributions to the defense of this great nation are appreciated. The current guard and reserve retirement system has been in place for many years and served us well. But, as the guard and reserve forces continue to play an increasingly important role in our nation's defense, AFSA believes it is time to reevaluate the need for guardsmen and reservists to wait until age 60 to draw retirement benefits. Perhaps a graduated retirement age, tied to active service as a guard or reserve member is more appropriate in today's environment.

Mr. Chairman, we need to eliminate the dollar-for-dollar offset of military retired pay when a retiree is receiving VA disability pay. Please keep in mind that veterans, including career civil servants who served less than a full career, receive their full VA benefit, while those military members who served to retirement see a dollar-for-dollar loss of retirement pay for each dollar of VA compensation received. This situation uniquely targets military retirees, despite the fact that retired pay and disability compensation are paid for entirely different reasons.

Many have questioned the cost of totally eliminating the offset (\$1.6 billion annually) and claim that concurrent receipt would benefit mainly officers because officers have more retired pay to offset. This doesn't pass the logic test, as each unfairly sacrifices an equivalent percentage of retired pay. Others question the need for additional compensation for retirees with low disability ratings. Both positions beg questions of equity, fairness, and the honest intent of disability compensation and that of retired pay.

Although this nation's ultimate goal should be the total elimination of the unfair offset between military retired pay and VA disability compensation, we need to, as a minimum, provide some "dual" compensation for those with the most severe disability ratings. These disabilities damaged the human body during service to the nation and, in many cases, left the individual retired military member unable to work.

CONCLUSION

Mr. Chairman, we have touched on a few of the areas that need your attention. AFSA appreciates the difficult task that you face, and we thank you for this opportunity to share our thoughts on these important issues.

We are very concerned that the Air Force continues to experience retention problems among those most experienced (more than ten years of service) personnel. Although not at a critical stage yet, we as a nation must remember the hollow force days of the late 1970's and make sure we never return to those days. The continued strength of the Air Force, and all services, will depend on the ability to recruit, train, and retain quality people. We can achieve those goals by providing a reason-

able quality-of-life for our members and their families as they serve our nation. Simply put, in order to keep a fit, fighting force for the twenty-first century, we as a nation must dedicate the resources to pay for it.

Again, thank you for this opportunity to express AFSA's concerns. As you face the tough issues, we trust that you will do what is right for enlisted military members—current and future, active and retired and their families. They deserve no less. As always, AFSA is ready to assist you on matters of mutual concern.

STATEMENT OF DAVID JOHNSON, PH.D., EXECUTIVE DIRECTOR, FEDERATION OF BEHAVIORAL, PSYCHOLOGICAL AND COGNITIVE SCIENCES

Senator STEVENS. Dr. David Johnson, Executive Director, Federation of Behavioral, Psychological and Cognitive Sciences.

Thank you, Doctor.

Dr. JOHNSON. Thank you, Mr. Chairman.

Mr. Chairman, normally I speak to the subcommittee about the basic or 6.1 behavioral research budget, but I am going to spend most of my time today on a proposed cut to applied advanced development, or 6.2 and 6.3, research—cuts that would destroy the behavioral research program at the Air Force.

Most applied and advanced development work on manpower, personnel and training is managed by the Armstrong Lab at Brooks Air Force Base in San Antonio. Behavioral research and development [R&D] is funded this year at \$11 million. The 1999 budget request would reduce funding to \$3 million. That will kill the program.

If 6.2 and 6.3 research—that is, the development of research in products—goes by the wayside, the 6.1 program will quickly follow suit, since it will be left as the front end of a pipeline leading nowhere. If the Air Force abandons human performance research, what will it lose?

It will lose its ability to adapt personnel to new skill requirements, to maintain readiness in the face of an increasingly diverse personnel pool, to maintain strength and quality while continuing to downsize, to incorporate usability planning into new systems designs, and to meet the increasing demand for distributed training. It will even lose its ability to adapt its personnel to the changing nature of warfare. That is pretty fundamental, and it is a lot to lose.

We are strongly urging the subcommittee to stop the devastation of the Air Force manpower, personnel and training R&D program. We ask the subcommittee to recommend explicitly a funding level of \$11 million for the behavioral research programs of the Armstrong Lab. We ask you, in addition, to support the administration's request for \$12.567 million for 6.1 behavioral research at the Air Force.

Let me turn briefly to the behavioral research budgets of the Army and Navy. Both of these budgets are also under stress. I want to thank the subcommittee for its role last year in saving the Army Research Institute [ARI]. Congress appropriated \$21 million for those programs for fiscal year 1998. After being taxed to pay for unbudgeted activities, I understand ARI finally received only \$18 million in this appropriation. The request for next year, \$16.7 million, is a large cut from the appropriated fiscal year 1998 amount.

We ask the subcommittee to maintain ARI at \$21 million, its appropriated fiscal year 1998 level. We also ask that the subcommittee support the administration request of \$39.69 million for the 6.1, 6.2 and 6.3 behavioral and bioengineering programs at Office of Naval Research [ONR].

In closing, however, it is important to mention that the ONR, ARI and Air Force Office of Scientific Research [AFOSR] budgets have been severely impacted by withholding of significant amounts of funds to help pay for unbudgeted, non-research costs, such as the cost of supporting recent efforts in the Persian Gulf. Those unanticipated cuts, amounting to 15 percent in the current fiscal year for behavioral research at ONR, wreak havoc with research programs. We hope that the subcommittee will continue working to improve our means of responding to unplanned, costly events like the Persian Gulf and Bosnia.

Thank you.

PREPARED STATEMENT

Senator STEVENS. Thank you very much. We appreciate your comments, and we will once again take a good look at them.

Dr. JOHNSON. I appreciate that.

[The statement follows:]

PREPARED STATEMENT OF DAVID JOHNSON, PH.D.

Mr. Chairman, members of the Subcommittee, my name is David Johnson. I am Executive Director of the Federation of Behavioral, Psychological and Cognitive Sciences, an organization of 17 scientific societies and some 150 university graduate departments. The scientists of the Federation carry out behavioral research, including research of value to the Armed Services. I am here today to talk about the behavioral research budget requests for the Army, Navy and Air Force.

Anticipated Air Force Cuts Are Devastating to Research

Usually when I appear before this Subcommittee, I discuss the 6.1 and 6.2 or basic and applied behavioral research budgets rather than the advanced development, or 6.3, research budget. I speak for university-based scientists, and most of the military work they do is of the 6.1 variety with some occasional 6.2 work as well. But today, in addition to discussing the basic research budget, I also want to say a few words about a very serious problem that is occurring with the applied and advanced development budgets for Air Force behavioral research. Most of this research is managed through that portion of the Air Force Research Laboratory that was known as the Armstrong Laboratory before the most recent reorganization of air force research. The activities to which I refer are managed at Brooks Air Force Base in San Antonio.

As you know, the military research budget is structured like a pipeline. It begins with basic research at one end and ends with the production of products at the other end. The Armstrong Lab is responsible for developing the products that flow from manpower, personnel, and training research in the Air Force. Those products are relevant to an astonishing array of Air Force needs from weapons design, to improvements in simulator technology, to improving crew survivability in combat, to faster, more powerful, and less expensive training regimens—and these examples just scratch the surface of the kinds of products that come out of the Armstrong Lab.

The fiscal 1999 request for Air Force research would reduce the appropriation for applications and advanced development flowing from behavioral research from \$11 million to \$3 million. At \$11 million, the program pays for itself many times over both in dollars and in lives saved. A cut to \$3 million will kill the program. The product development side of the behavioral research pipeline for the Air Force will be eliminated. It is a short step from that to eliminating the whole pipeline.

This fatal cut is short-sighted in the extreme. The work being done at the Armstrong Lab is the only research being done anywhere today that will provide the knowledge base needed to address tomorrow's formidable Air Force manpower, per-

sonnel and training problems. We know there will be new skill requirements, that force diversity will increase, that downsizing will continue, that the demand for distributed training will increase, that there will be new system design requirements, and that the very nature of warfare will continue to change. This cut will assure that the people of the Air Force will not be prepared for these changes.

Virtually every technique the Air Force uses to select, classify and train its personnel, to design its tasks, and to evaluate its performance can be traced directly to work either done by or supported by the military—much of it by the Air Force. Failure to sustain this investment will have a profound Air Force-wide impact on force capability and readiness down the road.

This cut is analogous to choosing to stick with the F-15 and the B-52 because they worked in the past. No one in the military would make such a choice with respect to hardware. But that is the choice that is being made about people if this cut is upheld.

Behavioral research and its products are at a particular disadvantage in the current decision-making atmosphere about military research because decisions about these programs are being made on the basis of short-term needs identified by each of the major commands. This atmosphere for decision making favors hardware development as a priority since those are the easily identifiable needs.

The fact that behavioral research can determine whether personnel will be able to use that hardware is not obvious until something goes wrong. For example, the military and the Federal Aviation Administration have been partners in developing the next generation of terminals for air traffic control. Insufficient attention was paid to human factors in the early decisions about those terminals. It took air traffic controllers complaining that they couldn't use the terminals to alert officials that there are serious problems with the hardware and software. The effect has been that very costly retrofits are now underway to make the terminals usable by air traffic controllers. And regardless of the retrofits, the terminals will not be as usable as they would have been had human factors been integrated early in the process because the architecture of the terminals limits the range of "fixes" that are feasible. The unplanned expenditures these fixes have necessitated so far—and there is still a long way to go—could have fully funded the behavioral programs at the Armstrong Lab. This is the kind of problem that can be expected to occur again and again if the programs in question are eliminated.

Unfortunately from a political point of view, the benefits of the products of behavioral research are Air Force-wide, not command specific. That means that no particular major command has a sense of ownership for behavioral research and its applications, whereas there is likely to be a strong advocate for any hardware development that will fit the immediate needs of a major command. The effect of that lack of a sense of ownership is obvious in the cut that is now contemplated. It is appropriate for Congress to take positive action on this problem in order to prevent the making of a mistake that will not easily be made right. Once the personnel who staff the Armstrong Lab are disbanded, the capability to do this work will simply be lost.

We strongly recommend that this Subcommittee do all in its power to see that funds are restored. The behavioral research programs are distributed among several subfunctions. Thus, in order to assure restoration of the funds, specific language directing that the funds be restored is needed. And in order to accomplish the restoration, 6.2 research at Armstrong would need to be funded at \$50,476,000 versus the \$40,929,000 requested, and 6.3 research would need to be funded at \$6,928,000 versus the \$6,636,000 being requested. Those amounts would place the programs at their fiscal year 1997 funding levels without any accounting for inflation. The total restoration would be \$9,839,000.

Before turning to the Army and Navy budgets, let me say that we support the administration request for 6.1 Air Force behavioral research. The requested amount is \$12,567,000. Let me repeat, however, that without the 6.2 and 6.3 programs, the basic research budget will soon be in jeopardy.

I would add that one immediate blow to basic research would come from the cuts at Armstrong. As part of its mission to improve manpower, personnel, and training, Armstrong has collected scientific data on all new personnel in the Air Force for many years. That data base is unique in the world for basic research in cognition. There is no other cognitive science database anywhere as complete as the one at Armstrong. As such, this database has been a treasure trove for basic researchers striving to understand how the human brain organizes and uses information. If that database is lost because of the cuts that are contemplated, the blow to the pace at which our understanding of human thought processes is growing will be severe.

Proposed Cuts At the Army Research Institute Would Also Cause Serious Damage

In turning to the proposed budget for the Army Research Institute, let me thank the members of the Subcommittee for their role in seeing that there is any budget at all for basic behavioral research at the Army. As the budget request for fiscal 1998 was being built, it appeared that the Army Research Institute would be eliminated. That initial direction was modified, and as the request came to this Subcommittee, a crippling cut, much like that now contemplated at the Air Force was requested. In the end, Congress decreased the level of cut and saved the program. While I understand that ARI finally received only \$18 million of the \$21 million appropriated by Congress for fiscal year 1998, it was, nevertheless, congressional action that saved the program.

The total behavioral research request for ARI for fiscal year 1999 is \$16.17 million, another substantial cut from its currently appropriated amount. That combined figure represents requests of \$2.47 million for 6.1, \$8.60 million for 6.2, \$3.02 million for 6.3 and \$2.08 million for 6.5. We have long argued before this Subcommittee that behavioral research funding for the Army is much too low given that the Army is the most personnel intensive of the armed services. The request for fiscal year 1999 continues the pattern of cuts for ARI that we have seen in previous years.

And once again, we ask the Subcommittee to recommend funding for ARI at the fiscal year 1998 appropriated level of \$21 million. That figure would represent appropriations of \$2.5 million for 6.1, \$9 million for 6.2, \$4.3 million for 6.3, and \$5.2 million for 6.5. Among its other research duties, ARI is the only research body in the armed services carrying out research on leadership, on sexual harassment, and on special training needs of soldiers for peace-keeping missions. The figure we are recommending that you support for 6.1 research represents a cut of 50 percent in unadjusted dollars from ARI's 1986 appropriation for basic research. If inflation is taken into account, it becomes clear that ARI has more than done its share of downsizing.

Taxing Naval Research For the Cost of Unanticipated Events is Wreaking Havoc

In commenting on the budget request for behavioral research at the Office of Naval Research, I want to raise an issue that has hit this budget especially hard in recent years, but that has also had significant effects on the research budgets of the Army and Air Force as well. It is characteristic of research budgets that they are paid out slowly over the course of a fiscal year. On the civilian side, this has made research budgets vulnerable when there are rescissions. On the military side, the research budgets have been vulnerable to unplanned taxation to pay for unanticipated events like Bosnia and now the Persian Gulf. It takes no special insight to see that inability to rely on a budget wreaks havoc with program planning. Funds are committed for work, and then those funds have to be cut back or even taken away. Good research cannot be sustained under conditions as uncertain as those that have been occurring recently.

We support efforts to develop a fund for unanticipated events so that the research budgets no longer have to be raided to help pay for them. During the current fiscal year, for example, the ONR biobehavioral research budget has been reduced by 15 percent from its expected amount by the withholding of funds to pay for non-budgeted, non-research activities. Given that the anticipated budget would have represented essentially a freeze at the 1997 level, a 15 percent loss on top of that is very difficult to absorb.

We are asking that the Subcommittee support the administration's requested budget for ONR. The request would maintain the budget at the fiscal 1997 level. For 6.1 research in bioengineering and behavioral research, the requested amount is \$14.20 million. For 6.2 research, the figure is \$16.55 million, and for 6.3, the request is for \$18.94 million.

The Navy's research program in these areas is especially well tuned to two top naval priorities: To reduce the number of sailors needed to fully staff ships, and to embed training in the work site so that training and skills upgrading can go on on board ship at any time with the actual equipment used on the job. The crew size reduction research will greatly reduce personnel costs while the embedded training research will assure that U.S. sailors will be the best trained in the world. Impeding the progress of this research with unreliable and inappropriately low budgets has two undesirable effects. It assures that costs that could be saved will not be saved, and it unnecessarily limits the quality and quantity of training sailors receive. The moral is clear enough: To save money and increase readiness simultaneously, fund research.

I thank the Subcommittee for this opportunity to present our views.

STATEMENT OF HAROLD P. VAN COTT, PH.D., PRESIDENT, HUMAN FACTORS AND ERGONOMICS SOCIETY; ON BEHALF OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

Senator STEVENS. Dr. Van Cott, please.

Dr. VAN COTT. Mr. Chairman, members of the subcommittee, I am Dr. Harold Van Cott. I am President of the Human Factors and Ergonomics Society and former staff of the National Research Council's Committee on Human Factors. I am speaking today on behalf of the American Psychological Association [APA], a professional and scientific organization of 155,000 members and associates, many of whom conduct behavioral research relevant to the military.

The contribution of psychological research ranges from improvements in the selection and assignment of personnel to the training and maintenance of skills, to the design of man-machine interfaces, to the efficient and safe operation of complex systems. Our military is facing a host of new challenges. Our forces are downsizing. Women are playing an increasingly prominent role. And an entirely new function—peacekeeping—has been added to the mission.

The sophistication of weapons and information technology has dramatically changed the skills required of our service personnel. What has not changed is that success in military operations still depends on people, at entry level, at every level. The Air Force alone loses the equivalent of one fighter squadron a year through accidents, around 80 percent of which involve human error. And it is not because we do not have the world's best and most highly trained aviators. It is simply because we have allowed hardware and software to get too far ahead of the people-ware, the humans.

Similarly, teams and leaders are facing new demands that we are only beginning to understand. The situation will not improve without serious investment in behavioral and social research. And currently that investment is appalling.

Consider that personnel and training costs account for one-third of DOD's budget. Yet DOD invests less than 1 percent of its science and technology budget in personnel and training research. Put another way, for every \$4 we spend on equipment, we spend \$1 to make it better. For every \$4 we spend on people, we invest about 3 cents.

At a time when Federal support for non-defense research and development is growing, APA has real concerns about declining Federal support for defense research. With the help of this subcommittee, the decline in spending on basic research has been shored up, albeit at the expense of the applied end of the research pipeline, mainly development spending.

APA urges the subcommittee to support, at a minimum, the increase to \$209.4 million for all basic research in the fiscal year 1999 DOD request for the Air Force. This money supports the Air Force Office of Scientific Research, which funds basic research both in the Air Force laboratories and, through grants, to academic institutions and other contractors. APA supports the \$12.57 million request for basic research at AFOSR.

We are very concerned, however, about significant cuts that are anticipated for development work at Brooks Air Force Base. The fiscal year 1999 request for the Air Force would reduce the funds

for applications in advanced development that come from behavioral research from \$11 million to \$3 million. The entire product development side of the behavioral research pipeline for the Air Force would be eliminated. Without product development, the basic research will no doubt soon be eliminated, too.

What does the Air Force get from its modest investment in behavioral research? To cite only one example, basic cognitive research is being done that allows the Air Force and other services to incrementally fine-tune tests on which the services base multiple decisions: which recruits have aptitudes for complex technical work, who is most likely to be happy in a new job and not drop out, who can develop new skills.

The Air Force—indeed, none of the services—can work with fewer people, with changing and complex technical jobs, without tools like this. The tests and the training techniques are the products. Failure to sustain this investment from basic to applied, to advance development research, will have severe impacts on the future. In fact, the customer is really the Air Force of tomorrow. That future Air Force is not one of the voices you hear in the clamor over short-term budget decisions, but Congress must ensure that its voice is heard.

PREPARED STATEMENT

APA urges the subcommittee to include specific language in the fiscal year 1999 appropriation that would restore \$9.84 million to the 6.2 and 6.3 research funding at the Armstrong Lab.

Last year's anticipated cut of 33 percent would have crippled APA's research capabilities. We are once again asking for your help.

Senator STEVENS. Thank you very much.
[The statement follows:]

PREPARED STATEMENT OF HAROLD P. VAN COTT, PH.D.

My name is Dr. Harold Van Cott; I am President of the Human Factors and Ergonomics Society, and former staff of the National Research Council's Committee on Human Factors. I am speaking here on behalf of the American Psychological Association (APA). APA is a professional and scientific organization of 151,000 members and associates, many of whom conduct behavioral research relevant to the military. This statement addresses two main issues of relevance to the Subcommittee: the continuing need to invest in psychological research in the Department of Defense; and the particular need to sustain support for the human systems programs in the Air Force.

DOD's support of psychological research dates from WWII when the efficient testing and classification of new recruits was critical to the rapid buildup of U.S. forces after Pearl Harbor. Today, the contribution of psychological research ranges from improvements in the selection and assignment of personnel, to the training and maintenance of skills, to the design of the human-machine interface, to the efficient and safe operation of complex systems.

Our military is facing a host of new challenges. Our forces are downsizing; women are playing an increasingly prominent role; and an entirely new function—peacekeeping—has been added to the mission. The sophistication of weapons and information technology has dramatically changed the skills required of our service personnel. What hasn't changed is that success in military operations still depends on people—at every level, in every unit. The Air Force alone loses the equivalent of 1 fighter squadron a year through accidents, around 80 percent of which involve human error. And it's not because we don't have the world's best and most highly trained aviators. It's simply because we've allowed hardware and software to get too far ahead of the "humanware." Similarly, teams and leaders are facing new demands that we're only beginning to understand.

The situation will not improve without serious investment in behavioral and social research, and currently that investment is appalling. Consider that personnel and training costs account for one-third of DOD's total budget. Yet DOD invests less than 1 percent of its Science and Technology budget in personnel and training research. Put another way, for every \$4 we spend on equipment, we spend \$1 to make it better. For every \$4 we spend on people, we invest about 3 cents!

THE RDT&E BUDGET

Maintenance of DOD's technology base must include 6.1 (basic), 6.2 (exploratory development) and 6.3A (advanced development) research on manpower, personnel selection, training, human factors, cognitive science, and other areas of behavioral research. Although less widely publicized than advances in military hardware, these contributions have been critical to sustaining our combat superiority. They have been possible only because the services have maintained closely coupled 6.1, 6.2, and 6.3A research programs on key human resources, training, and human factors issues. With systems growing more sophisticated and demands on the human operator more complex, we can ill afford to cut back on the research that is necessary to preserve our "combat edge." With the support of this Subcommittee, U.S. leadership in these crucial areas of behavioral research—in the service laboratories and in the nation's universities—will be assured.

We want to highlight the 6.1 portion of the RDT&E budget, and those programs in the Army, Navy and Air Force that support psychological research. This research fuels equally valuable 6.2 and 6.3A programs which are managed and conducted by the service laboratories.

BASIC RESEARCH (6.1)

At a time when federal support for non-defense research and development is growing, APA has real concerns about declining federal support for defense research. With the help of this Subcommittee, the decline in spending on basic, 6.1 research has been shored up, albeit at the expense of the applied end of the research pipeline, mainly development spending. We are pleased that the fiscal year 1999 budget would allow for significant growth in the 6.1 budgets in all three services.

The 6.1 budget funds basic research to support our national defense needs—current and future. Right now we see the fruits of research conducted in the late 1970's through the 1980's, when support for DOD research was expanding. It is not possible to maintain this growth rate, but it is important to maintain DOD's capacity to respond to future needs. More than ever, careful and prudent planning for future defense needs must be done. DOD supports research that other federal agencies or industry cannot fund, but that is essential to maintaining the world-class status of our military.

The Army, Navy, and Air Force each support basic psychological research to meet their particular needs. The services cooperate to eliminate unnecessary duplication of research efforts and actively share research results.

Air Force Office of Scientific Research (AFOSR)

APA urges the Subcommittee to support, at a minimum, the increase to \$209.4 million for basic research in the fiscal year 1999 DOD request for the Air Force. This money supports AFOSR, which funds basic research both in the Air Force laboratories and through grants to academic institutions and other contractors. The Air Force laboratories compete for these funds through the submission of research proposals that are evaluated in competition with proposals from the civilian sector. This ensures that the best and most relevant research is funded. APA supports the \$12.57 million request for basic behavioral research at AFOSR.

We are very concerned, however, about significant cuts that are anticipated for development work, mostly in the Armstrong Lab at Brooks Air Force Base. The fiscal year 1999 request from the Air Force would reduce the funds for applications and advanced development that comes from behavioral research, from \$11 million to \$3 million. The entire product development side of the behavioral research pipeline for the Air Force will be eliminated. Without product development, the basic research will no doubt soon be eliminated too.

What does the Air Force get from its modest investment in behavioral research? To cite only one example, basic cognitive research is being done that allows the Air Force (and other services) to incrementally fine-tune tests on which the the services base multiple decisions: which recruits have aptitude for cooperative group work; which should be trained in which program; who has the skills, or could develop the skills, to do a new kind of job. The Air Force, indeed none of the services, can work with fewer people, with changing and complex technical jobs, without tools like this.

Almost every technique the Air Force uses to select, classify and train its personnel, to design their tasks, and to evaluate their performance can be traced directly to work with done by or supported by the military, most of it by the Air Force. The tests and the training techniques are the products. Failure to sustain this investment, from basic to applied to advanced development research, will have severe impacts in the future: in fact, the customer is really the Air Force of tomorrow. That future Air Force is not one of the voices you hear in the clamor over short-term budget decisions, but Congress must ensure that its voice is heard. The proposed cuts will ensure that the programs and personnel who sustain this work will be gone inside a year, and those resources could not be reassembled.

APA urges the Subcommittee to include specific language in the fiscal year 1999 appropriation that would restore \$9.84 million to the 6.2 and 6.3 funding at the Armstrong Lab. This would maintain the programs at their 1997 levels.

Office of Naval Research (ONR)

The Navy's current investment in basic research is \$338.7 million. APA supports the fiscal year 1999 request for an increase to \$362 million. This increase would help restore previous funding cuts and sustain vital ONR research programs.

The Cognitive and Neural Sciences Division (CNS) in ONR was particularly hard hit by the fiscal year 1996 and 1997 reductions in the Navy's 6.1 budget. Its budget, like other research programs under the RDT&E portion of DOD's budget, has been tapped to help pay for overseas campaigns in Bosnia. APA urges the Subcommittee to support the administration's request for ONR. The request would preserve the budget at the fiscal year 1997 level. For 6.1 research in bioengineering and behavioral research, the request is \$14.2 million. For 6.2 research, the request is \$16.55 million, and for 6.3, \$18.94 million.

CNS supports research to increase the understanding of complex cognitive skills in humans; aid in the development and improvement of machine vision; improve human factors engineering in new technologies; and advance the design of robotics systems. An example of CNS-supported research is the division's long-term investment in artificial intelligence research. This research has led to many useful products, including software that enables the use of "embedded training."

Many of the Navy's operational tasks, such as recognizing and responding to threats, require complex interactions with sophisticated, computer-based systems. Embedded training allows shipboard personnel to develop and refine critical skills by practicing simulated exercises on their own workstations. Once developed, embedded training software can be loaded onto specified computer systems and delivered wherever and however it is needed.

Embedded training is particularly valuable for the Navy because naval personnel are often required to maintain high proficiency and readiness levels during lengthy, uneventful deployments at sea—far from land-based training facilities.

Army Research Institute for the Behavioral and Social Sciences (ARI)

APA is grateful for this Subcommittee's leadership in restoring funds to the Army Research Institute in fiscal year 1998. Last year's anticipated cut of 33 percent would have crippled ARI's research capabilities. We are once again asking for your help. Despite ARI's strong record in funding research essential to the training and performance of Army personnel, the Institute's funding continues to erode. The fiscal year 1999 request is \$16.17 million, a substantial cut from its currently appropriated amount of \$21.4 million. We urge the Subcommittee to continue support for ARI's work.

About half of the Army's budget, some \$45 billion, is spent on personnel. But less than \$18 million is now spent on research to help those personnel work more effectively. It appears shortsighted to invest such a disproportionately small amount in the Army's human resources. ARI works to build the ultimate smart weapon: the American soldier. And its efforts deserve your support.

The ARI was established to conduct personnel and behavioral research on such topics as minority and general recruitment; personnel testing and evaluation; training and retraining; and leadership. Reliable data about these issues is critical, as you know from today's headlines. While the Army seeks to solve the problem of sexual harassment within its ranks and establish workplace ethics and procedures that bring out the best from a diverse workforce, good data collected for the Army from scientists who understand how the Army works, will help the Army plan and execute reasonable policies.

ARI is the focal point and principal source of expertise for all the military services in leadership research, an area critical to the success of the military. Research that helps our armed forces identify, nurture, and train leaders is critical to their success.

SUMMARY AND RECOMMENDATIONS

It is sometimes easy to overlook the important contributions of behavioral research to the missions of the Army, Navy and Air Force because the results usually do not translate directly into new weapons systems or hardware. Yet behavioral research has provided and will continue to provide the foundation for tremendous savings through increased personnel efficiency and productivity. This work is vital to the military for identifying critically needed improvements in human resources development, training, and human error reduction.

Increasingly sophisticated weapons systems place more, not fewer, demands on human operators. We must ensure that military personnel are as well prepared as their machines to meet the challenge. This is not possible without a sustained investment in human-oriented research.

STATEMENT OF SYDNEY T. HICKEY, ASSOCIATE DIRECTOR, GOVERNMENT RELATIONS, THE NATIONAL MILITARY FAMILY ASSOCIATION [NMFA]

Senator STEVENS. The next witness is Sydney Hickey, Associate Director of Government Relations, the National Military Family Association.

Ms. HICKEY. Mr. Chairman and members of the subcommittee, the National Military Family Association appreciates this opportunity to express its views.

Contrary to much of the testimony heard this year, NMFA must report that information from our representatives at military installations around the world indicate that the morale of military families is not high.

To both NMFA field representatives and headquarters staff, military families talk about continuing deployments; long work days and weeks when the service member is at home station; depressed pay raises; a medical system that does not work for many; uncertainty about a future drawdown of forces; the effects of outsourcing and privatization, such as reduced services under the new parent support program; reduced funding at the installation level forcing cutbacks in services, such as library closures; a new formula for the basic allowance for subsistence which robs Peter to pay Paul; housing allowances that continue to fall far short of housing costs; increased WIC voucher redemption at commissaries; no WIC program overseas; continuing delay in bringing military household goods shipments in line with the civilian industry that fellow Federal employees enjoy; schools for their children that are facing significant budget difficulties both in the DOD system and in the public system; military housing constantly in need of repairs—repairs that never seem to get done.

Mr. Chairman, military families are a flexible and resilient group of people. But they see no light at the end of the tunnel. They also do not trust. They see their parents and grandparents, who served valiantly at low pay during World War II, Korea and Vietnam, now denied their promised employer-provided health care. They see a leadership who asks for subvention to provide such health care to this population; however, they know that while the DOD health care system may benefit from subvention, 70 percent to 80 percent of elderly beneficiaries will not.

Even active duty families with long-term or chronic illnesses find themselves having to fight the health care system for their promised benefits. Beneficiaries who do not live near an installation with a military hospital are denied the opportunity to enroll in

Tricare Prime, and fight continuing claims hassles to receive any reimbursement for their health care.

Perhaps as important, the children in these military families, who, statistics would indicate would normally make up approximately half of our future force, hear the concerns of their parents. If the service members of today and those of tomorrow are to be expected, if necessary, to lay their lives on the line for their country, they must have the faith that promises made will be promises kept. Trust and loyalty, Mr. Chairman, are two-way streets.

Thank you.

PREPARED STATEMENT

Senator STEVENS. Thank you very much.

We are back from a trip overseas, where we came to the same conclusion. The problem of morale and what we can do about it will be our number one issue that we discuss in this subcommittee this year.

Thank you very much.

Ms. HICKEY. Thank you.

[The statement follows:]

PREPARED STATEMENT OF SYDNEY T. HICKEY

Mister Chairman and distinguished members of the Committee, the National Military Family Association is, as always, most grateful for your continued strong support of those we serve, the men and women in uniform and their families.

THE STATE OF THE MILITARY FAMILY OF TODAY AND TOMORROW

As the National Military Family Association (NMFA) reports on the state of today's military family, we believe it important to reflect on how the current state will affect the military family of the future. In the mid 1980's the Families in Blue study showed that approximately 50 percent of the members of the Air Force at that time had been members of a military family in their youth. Unfortunately that same question has not been asked in subsequent studies of military personnel. However, a 1997 Department of Defense (DOD) study of military youth showed these children had a much higher propensity to join the Armed Forces than did their civilian peers. In 1996, the Navy found that 52 percent of the new recruits Naval Training Center, Great Lakes, IL were the offspring of people who had served in the military. Anecdotal information indicates that the same is true of the spouses of current military members.

NMFA submits, therefore, that pluses and minuses found in the quality of life of current military families has a direct affect on the future military family. Secretary of Defense Cohen stated in Congressional testimony on February 5, 1998, "Our approach mandates sufficient forces and capabilities to meet today's requirement, while at the same time investing wisely and with vision for the future." NMFA believes sufficient funding for quality of life must be invested to meet the needs of today's military families, realizing that the investment is for tomorrow as well as today. Secretary Cohen calls for preparing for "an uncertain future." The Army's Posture Statement for fiscal year 1999 states, "Soldiers are, as always, our credentials and our legacy. It takes time and resources to build a trained and ready force with the technological edge necessary for decisive victory today and in the future." NMFA believes the "time and resources" needed to build a force for "an uncertain future" should begin with the birth of each military child.

NMFA requests that as we report on the "State of the Military Family Today," the effects of this current state on the military family of the future be scrutinized as carefully as would proposals for research and development and procurement.

The Military Family Today

NMFA has been struck by the emphasis of all services on core values. While each service defines these values in slightly different ways the underlining meaning appears the same. The Army lists its core values as, "Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage." While military family members

may not serve in uniform, NMFA believes these core values are also extremely important in their lives. Families believe that the values of loyalty, respect, selfless service and trust is a two way street.

Basic Pay

The administration's request for fiscal year 1999 calls for a 3.1 percent pay raise. The request again this year is 0.5 percent below the Employment Cost Index (ECI). This brings the pay gap to more than 13 percent. From Secretary Cohen's February 5 testimony, " * * * the fiscal year 1999 budget includes strong funding for military pay * * *. The budget supports military pay raises up to the maximum percentage established by law."

Military families are asking why someone doesn't ask for raises at least at the ECI level.

Basic Allowance for Housing

NMFA strongly supports the concept of the new Basic Allowance for Housing (BAH), but is concerned that without a significant plus-up in funding families will continue to pay 19 to 20 percent of their costs out of pocket. The Army's Posture Statement acknowledges that the gap in fiscal year 1997 was 19.4 percent and states that, " * * * soldiers have the assurance that out of pocket costs for housing will not increase beyond present levels (under the new BAH)."

Military families are asking why someone doesn't request that their out-of-pocket expenses return to the Congressionally directed level of 15 percent.

Basic Allowance for Subsistence

NMFA supports the overhaul of the Basic Allowance for Subsistence (BAS) which will more closely reflect the costs of food. We do not support the funding mechanism to institute the change. Capping raises for those currently in receipt of BAS to provide for those who were not, is literally "robbing Peter to pay Paul."

Military families are asking why they are the ones paying for this increased benefit for single service members.

What's Left Over at the End of the Month?

Sergeant Major of the Army Robert E. Hall, in testimony of March 5, refers to a private first class (E-3), married with two children and living off-post, as having \$17 in discretionary income at the end of the month. A New York Times article of July 20, 1997, states that Navy members E-5 and below do not receive enough in housing allowance to cover the rental costs of a one or two bedroom apartment in San Diego, CA. A Master Chief Petty Officer (highest Navy enlisted rank) does not receive enough in housing allowance to cover the rental costs of a three bedroom apartment. It is no wonder that then Master Chief Petty Officer of the Navy John Hagan referred to the, "significant increase in the population of geographic bachelors in the past several years," in testimony on March 5, 1998.

Redemption of Women's, Infants' and Children's (WIC) nutrition program vouchers at Commissaries continued a steady climb by increasing 8.75 percent from 1996 to 1997. Voucher redemption is now close to \$22 million annually. Families overseas are still not able to take advantage of the program although DOD was given the authority to pay for it in Public Law 105-85. Undoubtedly the voucher redemption would be much higher if overseas families could participate in the program.

A study done by the Military Family Institute (MFI) of Marywood University, PA cited 123,000 Letters of Indebtedness being processed on an annual basis by the Navy for its uniformed personnel. According to the same study, 35,000 Navy members had their wages garnished in 1995. Certainly better financial counseling (as we will discuss later) could improve these statistics, but financial counseling is not the answer for a family with \$17 a month in disposable income.

Military families are asking why Service leaders continue to support pay raises below the ECI, housing allowances that demand more out of pocket than they can afford, and a decrease in BAS that leads to a decrease in compensation.

Time Away from Home

NMFA uses "time away from home" to describe both increased deployments and longer work days and weeks. The Army has had a 300 percent increase in deployment since 1989. The Commander in Chief, United States Atlantic Command Admiral Harold W. Gehman, Jr., USN, stated in testimony on March 4, 1998, " * * * because we have downsized our military forces at the same time we are using them more frequently, maintaining our readiness is more difficult than during the Cold War. Increased operations tempo and personnel tempo is * * * causing retention problems in certain military specialties." The Commander in Chief, United States Pacific Command Admiral Joseph W. Prueher, USN, in testimony the same

day stated, “* * * people are working hard and there is no sign of let-up in this workload.” And, “* * * readiness for deployed forces is increasingly achieved at the expense of non-deployed forces.” And “* * * personnel shortages are the principal readiness concerns * * *.” The Deputy Chief of Staff, Personnel, United States Air Force Lieutenant General Michael D. McGinty has also stated in Congressional testimony, “High operational tempo causes frequent family separations and long work hours both for those deployed and those at home station. Families left behind feel the strain as well. All of these factors are wearing on our troops.”

Navy family advocacy personnel report more and more attendees at their Stress/Anger Management Classes are complaining of long work hours and increased family separation. Chief Master Sergeant of the Air Force Eric W. Benken stated in testimony on March 5, “Never in our 51-year history have we asked our blue suiters to do so much.”

The Service Chiefs have all supported the budget request for an additional 23,512 reduction in active duty personnel.

Military families are asking how much more is supposed to be done with less.

Family Support

Army Quality of Life Programs.—The Army Posture Statement for fiscal year 1999 states, “The heart of Army family quality of life programs is the Army Family Action Plan (AFAP), one of our most effective change management processes.” Yet funding for annual national AFAP conferences has been cut, so they only occur every two years.

The Army Posture Statement cites education benefits as a top reason for soldiers to enlist and stay on active duty and states that post libraries support educational programs. Yet many post libraries have reduced services and operating hours and some have closed.

New Parent Support Program.—The New Parent Support Program has received rave reviews from both professionals and military families. In fiscal year 1997 funding for the program (thanks to Congressional direction) was \$20 million. In fiscal year 1998 the funding for the program is \$4 million and the budget request for fiscal year 1999 and outyears is \$10 million/year. The military married community is young and often lives thousands of miles away from their extended family. The New Parent Support program is intended to assist these young families as they become first-time parents. It is well recognized as a tested prevention and quality of life enhancement program. The \$10 million in funding will only provide services for less than a year to those families deemed “at risk,” essentially stripping much of the prevention aspect from the program.

Navy Family Service.—A private firm headquartered in Woodbridge, VA will be providing family support services to Navy families in San Diego, CA. NMFA remains concerned that stripping local commanders of direct control over family services will lead to inadequate support in crisis situations. We also can foresee a repeat of the New Parent Support Program situation. When budgets are cut, or are too tight, the contract will just not be funded. Even if the total contract is not cut, NMFA is concerned that budget constraints will decrease the funding available and the contractor will be forced to provide less and less service to fewer and fewer Navy families.

Child Care.—The availability of child care in the Services has increased dramatically over the last several years. The quality of child care in military Child Development Centers (CDC) is second to none, thanks to the Military Child Care Act passed by Congress. NMFA is pleased to note that the services are either currently subsidizing Family Home Care or in the process of initiating such action. This is a cost effective alternative to Center care, if it is affordable for military families. NMFA is concerned that some of the initiatives with the civilian community may eventually drive up costs at on-installation centers more than either the Services or families can afford. The Navy has taken the lead on exploring civilian alternatives to on-installation child care. The program consists of “buying down” the cost of child care in the civilian sector to the level charged at installation facilities. However, the Navy is finding that paying for such care for infants and those under the age of three is extremely costly. NMFA is concerned that care for the less expensive older children will be “bought down” in the civilian market, leaving the installation CDC’s to absorb the cost of the infants and toddlers. If this were to occur the costs at the CDC would soar. Since the parents of infants and toddlers are more likely to be lower ranking military members, they could not absorb any part of such a cost increase.

Youth Activities.—NMFA has been extremely pleased to note the Services are taking more of an interest in youth activities and programs. Before and after school programs are springing up at installations around the world. Youth centers are ag-

gressively exploring ways to proactively encourage youth participation in wholesome and personal growth oriented programs. However, families find an uneven application of these new programs among installations and Services.

NMFA particularly applauds the work done in the DOD Model Community Programs and even more those communities, such as Naval Air Station, Lemoore, CA, and the Air Force Academy that plan to continue their activities even though funding for the Model Community Program ends this month. It is fitting that Lemoore was chosen to receive the first 1998 National Performance Review Hammer Award.

Libraries.—NMFA believes the recent spate of on-installation library closures, sends the wrong message. What is the message sent when we fully fund physical fitness centers and close libraries?

Partnerships.—NMFA is also pleased to see some innovative partnering activity at some installations. Picatinny Arsenal in New Jersey has entered into a superlative partnership with the local recreation department and local schools. The civilian community has gained the use of sports fields and other sports related facilities, and the installation has received significant assistance with maintaining and upgrading their facilities. The installation commander retains control over the area and could, if necessary, restrict access.

Commissaries.—The recent Congressional Budget Office report on the Commissaries which suggests ways to make the benefit more cost effective for the nation, proposes dividing up \$50 million to the active forces and doing away with the subsidized benefit. Simple arithmetic will show that families would lose significantly under this proposal and one more promise to retirees would be broken. Military families have also been aware of a proposal from within the Pentagon itself to place Commissaries within the MWR category. Shortfalls in Commissary funding could then be made up with nonappropriated funds—the members' own money. While recent testimony strongly suggests that neither of these proposals is being seriously considered at the moment within DOD or the Congress, families are concerned.

Household Goods Reengineering.—NMFA is extremely pleased with the current apparent results of the Household Goods Reengineering Demonstration at Hunter Army Airfield, GA. Reports to date indicate overwhelming customer satisfaction, compared to overwhelming customer dissatisfaction with normal DOD moves. The claim rate for damage of property also appears to be significantly reduced. NMFA anxiously looks forward to the long delayed reengineering project to be run on the East Coast. We will be watching the Navy demonstration in Puget Sound. While customer choice is to be applauded, we hope that sufficient safe guards for the military family will be provided. Most new military families are too young and inexperienced to adequately negotiate permanent change of station moves and the attendant problems without assistance. Giving a credit card to the family and sending them out on their own may save the government money, but it will be at the expense of the family.

Financial Counseling.—The MFI study of personal financial management among Navy personnel raises some serious questions. The study shows that indebtedness is by no means limited to junior personnel. While it can certainly be argued that the pay of junior personnel could easily contribute to financial insolvency, the problem is much more widespread. NMFA agrees with most of MFI's recommendations, specifically the implementation of an effective, proactive Personal Financial Management Program that continues throughout the service member's career.

Service members are deploying frequently and working long days and weeks when not deployed. They have little, if any, time to investigate the new tax laws on their own, or to investigate savings options available to them.

Knowledgeable financial counselors can provide service members with up to date information regarding their financial options and encourage goal-oriented savings habits. For instance, NMFA wonders how many military families with children under the age of 17 are aware that they could, this very day, increase their take home pay based on the new Child Tax Credit.

Military families are asking why it is when budgets get tight the things they value the most come under attack.

Education of Military Children

Military families list education as one of their most important Quality of Life concerns. Even when their children are settled into what seems to be a good educational program, parents remain anxious. Military parents often say, "We think our child is doing OK now in his current school and would be prepared to enter the next grade here." But they worry, "How do I know he'll have the skills he needs in the school at our next assignment in Okinawa or Heidelberg, in San Diego, CA or Fairfax County, VA?"

School Volunteers.—Military families applaud the services' initiatives to get their service members and civilian employees into the schools as volunteer mentors, tutors, and as special program help. Mission permitting, Army personnel interested in volunteering in local schools may be excused from duty for up to one hour per week. Civilian employees may be excused for up to 59 minutes per week without being charged for leave. The Navy's "Personal Excellence Program" enables sailors to visit schools on a daily basis to assist in whatever activities are needed.

Department of Defense Education Activity (DODEA).—NMFA and military families applaud DOD's decision last year to establish Domestic Dependent Elementary and Secondary Schools (DDESS) on Guam in response to their concerns and those voiced by the Services. Schools started late, students will have to make-up days lost due to Typhoon Paka, there's no lunchroom, and classes are held in renovated aircraft hangars and other temporary quarters, but enthusiasm continues to run high. Unaccompanied tours to Guam are down as more service members feel secure enough about the quality of the education available to bring their children to Guam.

NMFA applauds the planned expansion of the Sure Start program for four-year olds in 27 overseas schools over the next two years, allowing Department of Defense Dependents Schools (DODDS) to serve approximately 500 more children. We support other DODEA initiatives to target resources to the schools and children most in need through the new Framework for School Improvement Support.

NMFA supports DODEA's efforts to hold itself accountable for improving student achievement and reaching the goals in its Strategic Plan. Families are pleased that raising parent and community involvement in decision-making are part of that plan.

Parents' anxiety level goes up when DODEA plans for this input and involvement are not implemented in a timely manner. Their anxiety level goes up when DODEA postpones the Parent Report Card, the one established means of soliciting parent input on the quality of schools. DODEA's plan to expand this biennial survey to include all stakeholders—parents, school staff, military commanders, and students—in DODDS and DDESS is worthy. However, no comprehensive survey of parents has been made since Spring, 1995. Unless a survey is done this spring—and no date has been set—the families who began their three-year overseas tour in the summer of 1995 will rotate out this summer without ever being asked their opinion of the schools their children attended.

Parents' anxiety level goes up when they worry if their on-base DDESS schools will be transferred to the neighboring civilian districts whether as the result of privatization or of the findings of the long-awaited transfer study ordered by Congress in 1995. The anxiety goes up when they hear the news that private developers are to build new family housing, but that no one has asked what impact this housing—and the children who live there—will have on the local school system.

Parents' anxiety level goes up when their school officials talk of budget cuts. Press reports this winter about DODEA budget cuts due to an underutilization of workyears and a failure to pay bills on time, have raised parent concerns in both DODDS and DDESS. Will their children's schools have enough resources to finish this school year and obtain the books and supplies needed for the start of the next year?

DOD IMPACT AID SUPPLEMENT FOR HEAVILY-IMPACTED DISTRICTS

In civilian school districts (which educate most military children), military families' anxiety increases when their school officials or the local press talks of budget cuts necessitated by DOD's failure to pay the Supplemental funding for heavily-impacted districts for fiscal year 1998. For these districts, Department of Defense Supplemental funding in six of the last eight years has provided necessary funds for construction, extra teachers, or technology. These funds supplement Impact Aid and enable heavily-impacted districts to approach the level of educational opportunity available in neighboring, non-impacted school districts even though they do not have access to the same kind of tax base.

SERVING THE MILITARY CHILD

Because our families worry about their children's ability to transfer from one school system to another, NMFA is pleased to note that civilian districts serving military children are beginning to talk to each other about how to make this transition easier and to serve these children and their families better. After sponsoring a conference on "Supporting the Military Child" at Fort Hood (TX) in June 1997, the Killeen School Board voted to fund start-up costs for a new Military Child Education Coalition. Information about this coalition will be provided to participants at a national conference on "Serving the Military Child," to be held October 1998 in Arlington, VA. Although the organization of the conference is being spearheaded by

the Groton (CT) school districts, all branches of the Armed Services and school districts from several states are represented on the planning committee. The conference has already attracted support from the Departments of Defense, Education, and Transportation and Members of Congress. General Henry H. Shelton, Chairman, Joint Chiefs of Staff, has indicated that he will participate in the opening session of the conference.

Military families are saying that it's about time people started talking to each other about quality education for our children.

Military Communities

In an article in the Colorado Spring Gazette-Telegraph on January 12, Chaplain Herb Kitchens of Fort Carson is quoted as saying, "I'd never been here before, but when I drove on the post, I had a sense of feeling at home. The Commissary and PX are the same wherever you go, the chapel is the same, the gymnasium is the same." In the same article military family members sitting around a table in the Army Community Service center spoke of the escalating need for the community when deployments occur, and of the camaraderie that is key in meeting the ever changing demands of military life. One Staff Sergeant said, "most of the time your immediate family's not here, so you have a structured family outside of the immediate family which is the military community."

Deputy Chief of Staff for Manpower and Reserve Affairs, Headquarters, United States Marine Corps, Lieutenant General Carol A. Mutter's March 3rd Congressional testimony stated, "Our installations by their very nature are self-contained communities, communities in which Marines and their families live, work, go to school, shop and recreate."

PRIVATIZATION

Privatization of family housing may increase the number of available housing units at the expense of the military community. NMFA understands the need to find an alternative to military construction dollars to more quickly replace the high number of substandard military quarters. However, the entire community, both civilian and military, needs to be involved as privatization decisions are made. Projects built on land not federally owned will create significant hardships on the local education authorities. Military children who live on federal land bring approximately \$2,000 per child to their school districts. Military children who live on private land bring \$200 to their districts. Even where new housing is to be located can impact local schools. If a significant influx of new students are expected because housing has been built in a certain school district, even a \$2,000 per year Impact Aid payment will not build necessary new schools or provide additional transportation to existing schools.

Will the private construction of new military housing significantly affect the local real estate market, and/or community transportation services and roads? None of these items should be a barrier to privatization, but they can be a barrier to good community relations if the entire community is not involved in privatization discussions.

If military housing is built off the installation will services such as community pools, libraries and other recreational and support services be expected to be provided by the civilian community? NMFA senses in some privatization initiatives the intent to have military families rely solely on the civilian sector in which they reside for support services. Installations would essentially be turned into "places of work" rather than the focal point for military communities.

Military communities are not just brick and mortar. The military community is people—families who band together to support each other, and the individuals who serve the service members and their families. The focal point of the military community is the installation. The place where service members and their families gather. The place that "looks like home" whether it may be.

MILITARY CONSTRUCTION/REPAIR AND MAINTENANCE

The Army Posture Statement reports, "Nothing contributes more to our soldiers' quality of life than the conditions in which they live." Yet the Army budget request is underfunded by \$450 million for family housing.

Secretary Cohen's February 5 testimony states, "When adjusted for today's lower troop strengths, fiscal year 1999 O&M funding is well above levels during the 1980's." However, in the 1980's approximately 20 percent less of the force was married with family members. Commander, United States Forces Korea General John H. Tilelli, Jr. stated in testimony on March 4, "my base operations program (real property maintenance, security, communications, transportation, and food services)

are strained. These funding levels only support bare minimum repairs to facilities. This situation does not allow me to resolve long-standing quality-of-life issues to the extent that our service members deserve and I am concerned that this underfunding will eventually affect readiness."

CMSAF Benken stated in testimony, "Our people do not expect to live in luxury—they simply want the peace of mind that comes with knowing their family is comfortable and safe, especially when they are deployed."

Military families are asking if the condition of their on-installation housing and some of the privatization initiatives are a way to encourage them to live off base. Military families are asking if the focal point, the place they gather to form their community, will exist in the future.

Health Care

Tricare Prime.—As this Committee knows, health care for military families has been a strong focus for NMFA for over a decade. We have seen progress in access to care for families enrolled in Tricare Prime and who live in areas with a Military Treatment Facility (MTF). However, Tricare has done little for families who reside in an area without an MTF. Active duty families remotely assigned or those stationed at installations with small troop clinics have seen more problems under Tricare than under CHAMPUS. Either Tricare Prime is not offered where they live, or it is and their access to providers is limited and their costs may have increased. For those reliant on the civilian part of Tricare Prime, provider directories are most often incorrect. Families call those listed in the directory only to be told: the doctor is not a Prime provider and never has been; the doctor is no longer a Prime provider; or the doctor is not taking any new Prime patients.

In the Region 11 demonstration of Tricare Prime Remote, families are often charged balance billing by specialists because providers will not join the Prime network. These families have the restrictions of Prime with no guarantee on what their out of pocket costs will be.

DOD's Press Releases announced portability of Prime for active duty families some six months before contractors were able to fully implement it. Portability for retiree Prime enrollees was, according to DOD Press Releases, started on December 1, 1997. Yet some Tricare contractors are just now beginning to implement the program. Multiple copayments for single visits continue as does balance billing for Prime enrollees forced to receive inpatient care from non-Prime providers. Prime patients referred by their Primary Care Manager to non Prime specialists are paying balance billing copayment—significantly higher than \$12 a visit.

Retirees who do not live near a military treatment facility, or near a concentration of active duty families, are not offered Prime. Prime enrollment for overseas retirees in Europe appears to be on an indefinite hold and will not be available in the Pacific.

Tricare Prime Patients Pay Lion's Share of Cost.—Exhibit A shows that Tricare Prime patients are paying more for their mental health visits than those in Tricare Standard. In fact, these military family members are paying between 44 percent and 55 percent of the entire bill. NMFA does not believe it was Congress's intent that savings in the military health system were to be paid by the beneficiary! Unfortunately, NMFA does not know how prevalent this fee structure is. We implore this Committee to investigate to ascertain if this phenomena is occurring throughout all of the Regions and for other kinds of care.

Tricare Standard.—Those who have chosen to stay with CHAMPUS (Tricare Standard) are subject to preauthorization for a number of outpatient procedures. Unfortunately, they are totally unaware of the requirement. Unlike true health insurance plans which provide booklets to inform their patients of their plan's benefits and restrictions, the military health care system provides no such information. CHAMPUS (Tricare Standard) booklets are printed at erratic times and years apart. The booklets are not updated. Booklets are not mailed to beneficiaries. In fact, not enough are even printed for the eligible population!

Dual Medicare-military Eligible Beneficiaries.—Retirees who are Medicare eligible because of age are locked out of the military system altogether. DOD received permission to institute a demonstration of Tricare Senior Prime (Medicare Subvention) starting in January of 1998. It is not yet implemented and DOD has been unable to give a fixed date for implementation. In the meantime World War II, Korean War and Vietnam retirees and survivors are dying daily. Even full Subvention, if authorized, will be unable to care for more than 30 percent of the eligible population.

The other new program for dual Medicare-military eligibles, called "Partners Program," will essentially offer enrollment in a Medicare at risk HMO. The Department has not yet outlined what advantages, if any, enrollment under the "Partners Program" would have over simply enrolling in the Medicare at risk HMO.

Tricare—Another Federal Civilian Health Care Program.—As more MTF's become clinics and no longer inpatient facilities, families will find themselves seeking more and more of their care from civilian providers. Tricare is rapidly becoming another federal civilian health care program. However, unlike plans for federal civilians Tricare offers limited choices for military beneficiaries. Medicare eligibles will be offered an HMO or no employer provided coverage. Retirees who do not live near a military hospital are offered only a modified fee for service program with inpatient copayments so high that they must pay for a supplemental policy. A situation not faced by federal civilian retirees. Active duty families do not know what their choices or out of pocket expenses will be from one duty station to the next.

NMFA Health Care Proposal.—NMFA continues to believe that its proposal which follows is the most cost effective program. It still ensures medical readiness, but also offers military beneficiaries the same scope of choices as civilian employees and retirees.

NMFA's Proposal consists of two elements: The Military Health Plan and optional enrollment in a plan within the Federal Employees Health Benefits Program (FEHBP). (The Proposal does not include health care for active duty members. NMFA believes that their health care is a readiness issue. We also believe that, as under current law, their health care should be provided free of cost to the individual no matter where it is received.)

—*The Military Health Plan.*—The Military Health Plan would closely resemble what is now Tricare Prime. It would be an enrollment-based Health Maintenance Organization (HMO) type plan centered in military hospitals. When needed, military hospitals could contract with a Tricare Support Contract-like entity to provide full service health care for all enrolled beneficiaries. All military beneficiaries, including those eligible for Medicare due to age, would be allowed to enroll. NMFA envisions that these military hospitals would be full service community or teaching hospitals able to provide most necessary care. Practitioners would have access to a full age range of beneficiaries in order to keep their skills current. Unless the quality of care or service was noticeably inferior to other options, NMFA believes the vast majority of military eligible beneficiaries who reside near such a military facility will enroll in the Military Health Plan.

—*The FEHBP Option.*—Military beneficiaries who do not live near a military hospital, or who do not wish to enroll in The Military Plan, would have the option of enrolling in a plan within the FEHBP. Active duty service members would be provided a Health Care Allowance (similar to the housing allowance) for their families. Service members whose families enroll in The Military Health Plan would lose their Health Care Allowance, just as they lose their housing allowance when living in government quarters.

The Health Care Allowance for active duty service members should pay the beneficiary portion of a moderate cost HMO within the FEHBP. Service members whose families choose to buy a more expensive plan would be responsible for the cost differential. NMFA believes it imperative to provide total premium protection for active duty families. Service members, particularly those deployed, should not have to be concerned about adequate, affordable health care for their families.

All other beneficiaries would pay the beneficiary share of the premium as do Federal Civilians. DOD would absorb the government share of the premium for all military beneficiaries as it does for all of its civilian employees.

NMFA must admit to extreme frustration that the dialogue on this proposal centers solely on money. We believe that somewhere in the discussion should be the simple question of what kind of health care benefit this country should offer to military members and their families.

Military families are asking the same question. Military families are also asking why DOD agrees it has an obligation to keep promises made regarding health care, but continually drags its feet on doing so.

Retirement

The majority of the active duty force today is offered a retirement program vastly inferior to the one enjoyed by those who are currently retired. These active duty members will receive 40 percent of their basic pay upon twenty years of service vice 50 percent and will have their cost of living allowances capped. This new retirement system was instituted shortly after significant raises in active duty pay. However, the pay raises have not continued. The effect of this decrease in retired pay has been masked by the mammoth reduction in forces. As the Services begin to turn from "push you out" to "recruit and keep you" the significance of the retired pay reduction should begin to materialize. Recent testimony in the Senate by military

recruiters indicates that the reduced retirement plan is significantly affecting their ability to compete with private industry for quality accessions. Second term retention rates in some services would suggest that something is causing military members with substantial years invested in the system to rethink their career decisions.

Is it the new retirement system? Is it the broken health care promises? Is it the threat to prevent retirees from exercising their commissary benefit?

Military families are not asking if the promises will be kept. Based on current evidence they do not believe that they will.

CONCLUSION

This country is extremely fortunate that many bright and dedicated individuals and their families are willing to serve their country. They are enduring many sacrifices to do so. Their children listen around the kitchen table as discussions of "do we stay or do we go" occur. They hear and experience the frustration of diminished quality of life and continuing threats to valued benefits. These children hear of the broken promises, they hear the distrust about the availability of benefits for their parents.

As Admiral Prueher stated in his March 4 testimony, "Investments in people and training are as important as new technology. Adequate funding for compensation, medical, retirement, housing and other quality-of-life programs is necessary to attract and retain the skilled personnel upon which our forces depend."

NMFA suggests that "adequate" is in the eye of the beholder. Increased time away from home aggravated by personnel cuts, decreased family support, fewer choices and increased costs for medical care, compensation caps, attacks on the foundation of the military community, substandard housing, and concern about their children's education, may make many military families decide to vote with their feet. Perhaps as importantly, it may cause the potential military family of the future to decide that loyalty, trust and respect are one sided. They may decide the military community of their great-grandfathers and grandfathers did not exist for their mothers and fathers and would not for them.

STATEMENTS OF:

**FATHER WILLIAM L. GEORGE, S.J., ASSISTANT TO THE PRESIDENT,
GEORGETOWN UNIVERSITY**

FATHER LEO J. O'DONOVAN, S.J., GEORGETOWN UNIVERSITY

Senator STEVENS. Father Collins and Father George, please.

Father GEORGE. Father Collins sent me, Mr. Chairman.

Senator STEVENS. We will have to deal with what the Lord gives us, Father. [Laughter.]

Father GEORGE. Mr. Chairman, Senator Inouye, Senator Domenici, and staff, thank you for the privilege and the opportunity to testify.

I would like to ask you, as you consider your appropriations for this year, to give special consideration to advanced technologies in medicine that would help the young men and women in the service prevent some of their diseases, cure them more quickly, and get them back to their duty as quickly as possible. A couple of areas I would like to mention are diabetes and hypertension, in which we are cooperating with Walter Reed in deploying some telemedicine systems in homes, where you can monitor the patients more clearly and some of the diseases that can crop up with diabetes.

The other would be that there are such advances in robotics and communications and computing that there is the capacity to develop a really good surgery for the spine. And one of the first persons who spoke here spoke on back injury. Well, if you can get in there quickly with minimally invasive stuff, instead of being a month out of work, you can get that person back in, in 3 or 4 days, perhaps, if you get it in time. That also could be effective in prostate and kidney types of surgeries, as well.

And, finally, we as a University, cooperate and are working with the Lovelace Institute. And what we are working on is a way to prepare the lungs of soldiers in the field, men and women, that if they were up against a biological or a chemical type of event, that it would protect their lungs, and then, second, methods that would actually regenerate the tissue in the lungs, where the oxygen exchanges.

And so I would like to ask your committee to look into that as carefully as possible. And I know you do. But thank you for the opportunity to testify, Mr. Chairman.

Senator STEVENS. Thank you.

Mr. Cortese reminds me that we did follow your request last year and it was vetoed.

Father GEORGE. By one of our alumni. I mean, yes, that is pretty hard to believe. [Laughter.]

PREPARED STATEMENT

Senator STEVENS. Well, we will see if we can try again. Thank you very much, Father.

Father GEORGE. Thank you, Mr. Chairman. God bless you.
[The statement follows:]

PREPARED STATEMENT OF FATHER WILLIAM L. GEORGE, S.J.

Mr. Chairman and Members of the Committee: We are Father William L. George, S.J. and Father T. Byron Collins, S.J. Assistants to the President of Georgetown University, the Reverend Leo J. O'Donovan, S.J. We appreciate the opportunity to submit this testimony to the subcommittee on Georgetown's cost reducing advanced medical technologies.

Advance technologies have made dramatic changes in health care. Georgetown University and Walter Reed Army Medical Center have been focusing cost reducing medical advanced technologies that at the same time improve the quality of care. We request \$20 million for fiscal year 1999 to be added as a continuation to the existing research contract DAMD-17-94-V-4015 to further develop and deploy these technological innovations. Two of the high cost areas in health care are management of chronically ill patients and major surgical procedures requiring hospital stays. We propose to target these two important areas that share common technological infrastructure.

Diabetes and hypertension are two of the major chronic illnesses that consume billions of dollars of health care cost. As the population ages, we expect a dramatic increase in the number of chronically ill patients. These patients, though they are a small percentage of the entire patient population, account for the majority of health care costs. For diabetes patients, if the glucose level can be tightly controlled by various means, they can lead a more productive and healthier life with a reduced risk of further medical complications. Currently we are installing, in collaboration with Walter Reed Army Medical Center, telemedicine systems at a number of diabetes patients' homes to monitor their glucose levels. We propose to expand the technical capabilities to reach a greater number of patients. This home-based telemedicine system will also be used for patient education, patient support activities, and computer assisted medical intervention to avoid medical complications that can be very costly.

Advances in imaging, robotics, communication and computing have made it possible to operate on a patient without making a large open incision. The application of such a technique, known as minimally invasive therapy, has begun to revolutionize the traditional therapies and surgeries. For example, the hospital stay will be reduced from 7-9 days to 1-2 days in the case of spine surgery patients, thus reducing the morbidity and mortality rates and the cost of care. This new surgical program will include surgeries in the spine, prostate and kidney. For our men and women in uniform, this new technique will allow rapid return to duty. GUMC has been developing this project with multiple investigators at Walter Reed Army Medical Center over the past two years. Requested funds will allow us to expand current limited capabilities for routine patient care.

**STATEMENT OF KENNETH E. QUICKEL, JR., M.D., PRESIDENT, JOSLIN
DIABETES CENTER, BOSTON, MA**

Senator STEVENS. Dr. Kenneth Quickel, from the Joslin Diabetes Center. Good afternoon, sir.

Dr. QUICKEL. Mr. Chairman and members of the subcommittee, we at Joslin certainly appreciate the opportunity to be here today, and we are eager to report to you our current progress with the demonstration project that was funded last year.

The Joslin Diabetes demonstration project will institute pilot programs of detection, prevention and care in two regions. First, in Hawaii, through Tripler Army Hospital; and the second, in New England, through the Veterans Administration System. The objectives involving and technology transfer from Joslin's knowledge base, utilizing telemedicine strategies in the Department of Defense and the VA system, to provide state-of-the-art care to people with diabetes.

We would like to thank you for the funding in the 1998 Defense Appropriations Act for the diabetes research project, and we would like to express our appreciation for the support and leadership on diabetes issues that Senator Inouye and his staff have provided, largely focused on the Stroup Clinic and Hospital in Hawaii, where we are coordinating this project.

I would like to focus on two principal areas. First, to give you a very brief status report; and, second, to talk a little bit about the second year. The two objectives of the project were to screen for diabetes among Department of Defense and VA patient populations, and then to use innovative technologies to do that screening, which involves nothing more than shining a light in the eye. The second objective was to use the knowledge and the early diagnosis to implement improved diabetes care technologies.

The project has now been assigned program element number 63002 and project number 941. But September 30, 1998, we will have accomplished several things. The first is we will have completed the preliminary studies and setup of equipment and personnel in the New England. And we will be beginning to actually apply those strategies to the care of people with diabetes. The second is that we will have implemented phase one in Tripler Medical Hospital and be prepared to move on to the second phase at that point.

Now, when this project was funded nearly a year ago, and since that time, we have spent about \$1.5 million of Joslin Diabetes Center funds without any of the funds yet coming out. We have continued to push the project forward. We were not aware that at each stage of the Department of Defense review a percentage of the funds would be appropriated elsewhere. The bare-bones budget that we submitted last year has been therefore reduced to an insufficient level.

Mr. Chairman, in order to implement this project properly and conduct the project in a manner that we intended, we will require an appropriation of \$6.4 million for this project in 1999. We believe that with that appropriation, which is strongly supported by all parties, we can move this forward to benefit the lives of people with diabetes.

Senator STEVENS. Let me make sure I understand this, Doctor, because I am naive, too; right? We gave you \$2 million last year?

Dr. QUICKEL. No, the appropriation last year was \$4 million.

Senator STEVENS. \$4 million.

Dr. QUICKEL. Yes.

Senator STEVENS. But you have not been given any of that yet?

Dr. QUICKEL. We have not seen any money yet.

Senator STEVENS. And you have spent \$2 million almost?

Dr. QUICKEL. We have spent almost \$2 million of our own funding, because we felt that to stop the forward momentum of this would be damaging to the project itself out of some confidence that the funding was going to come.

Senator STEVENS. And at each stage of this review, which is a peer review I take it—is that right?

Dr. QUICKEL. Mostly.

Senator STEVENS. They are taking money out of it. And there is an overhead charge and a management charge.

Dr. QUICKEL. Well, yes, there is payment for overhead charges, expenses of conducting the process.

Senator STEVENS. And you have got a half-a-million-dollar bill from VA for their participation?

Dr. QUICKEL. Yes.

Senator STEVENS. Cannot you do this all yourself?

Dr. QUICKEL. We have done it all ourselves to this point. And we have done it basically based on philanthropy and National Institute of Health [NIH] funding. And we are at a point now where it needs to be converted to a practical strategy that can be actually applied in the field. And because of the military's and the VA's interest in telemedicine, it is a perfect match, of taking something to them that they can use, and they bring something to the table that we need, in terms of the expertise in telemedicine.

Senator STEVENS. But if your request goes up 55 percent every year, you are not going to be involved in this very long, because we cannot afford that.

Dr. QUICKEL. I understand.

Senator STEVENS. So I suggest you get together with your colleagues in the VA and the DOD and tell them to keep their mitts off your money. We will tell them, too.

Dr. QUICKEL. Yes, we appreciate your help with that.

Senator STEVENS. I do not think there should be that kind of assessment. So unless they come to us and tell us to the contrary, we are going to find an arbitrary figure and limit the amount they can charge for oversight of these. We cannot afford to finance it.

Dr. QUICKEL. Yes.

Senator STEVENS. And it sounds to me like they built up a unit in government to keep pace with what you are doing outside of government.

Dr. QUICKEL. Right.

Senator STEVENS. And we turn to you because we thought you had special expertise.

Dr. QUICKEL. Sure.

Senator STEVENS. We cannot stand that duplicated buildup. We will work with you to see what we can do. I am going to direct the staff to contact you and your VA and military counterparts, and

tell us how we can limit them from invading this money. We want you to give us your advice, and we selected you because we thought you had that expertise. We did not intend for that money to be siphoned off by any unit of the government. So we will try to do our best. But we cannot raise you \$6.4 million this year, with a budget that is less than we had last year. All right?

PREPARED STATEMENT

Dr. QUICKEL. I appreciate that. So far, all of the money that has been spent is ours. And we are hoping to get this thing back on screen so we can continue to move forward. We appreciate your time and interest.

[The statement follows:]

PREPARED STATEMENT OF KENNETH E. QUICKEL, JR.

Mr. Chairman and Members of the Subcommittee, we at the Joslin Diabetes Center in Boston appreciate the opportunity to appear before you again this year. We are extremely eager to report to you the progress on the two region, two year diabetes pilot demonstration project Joslin proposed to you last Spring.

The Joslin diabetes demonstration project will institute pilot programs of detection, prevention and care in two regions: (1) Hawaii, through Tripler Army Medical Center; and (2) New England through VA's VISN-1. The objectives involve a training and technology transfer exercise of Joslin's expertise utilizing telemedicine infrastructures, personnel and employee/patient bases of the Departments of Defense and Veterans Affairs.

We at Joslin would like to thank you for the funding in the Fiscal Year 1998 Defense Appropriations Act for the diabetes research project we are participating in with the Department of Defense and the Department of Veterans Affairs in New England and Hawaii. We would like to express our appreciation for the support and leadership on diabetes issues to Senator Inouye and his staff, and to the majority and minority professional staff of the Committee for their advice and counsel on the legislative process and DOD interface.

My testimony focuses on two aspects of the project: (1) A status report on the current year; and (2) A request for second year funding.

STATUS REPORT: FIRST YEAR ACTIVITIES

As you recall, the two objectives of the project are (1) Screening for diabetes among DOD's and VA's patient populations in New England and Hawaii, using an innovative technology which requires nothing more than shining a light in the eye; and (2) Implementing improved diabetes prevention and care protocols for the DOD's and VA's patient populations in New England and Hawaii.

We were delayed in implementation somewhat this year due to DOD's deliberations on where to place this project programmatically. While the funding flow was being cleared, we have continued to invest resources and develop elements of the program at Joslin. We have now settled those issues and are linked with TATRC, the Telemedicine and Advanced Technology Research Center at Fort Dietrick, Maryland.

Significant progress has been made towards establishing initial pilot studies to study patients with diabetes. We have reached understanding, with the support of DOD and VA personnel, on implementation of the work plan we brought to the Committee last year. We are in active discussions on implementation with both Departments.

Shortly, we will begin:

- Three Phase I pilot projects to provide information on the expected magnitude of the proposed interventions and to evaluate the feasibility of the application of these protocols at multiple sites. After the Phase 1 pilot study, we will move to a Phase 2 large-scale study on both the Joslin Vision Network (JVN) and the Diabetes Intensive Treatment Program (DOIT).
- The process of developing the Phase 1 and Phase 2 studies for both the JVN and the DOIT Program at the DOD.
- The process of organization and distribution of the remote access diabetic detection units at multiple sites.

By September 30, 1998, we will have accomplished the following, despite the delay in our start date: Completion of Phase 1 studies in the New England area for the VA; Implementation of Phase 2 studies in the New England area for the VA; Implementation of Phase 1 studies at Tripler Army Medical Center, Hawaii; Deployment of three remote examination sites in New England; Initiation of the deployment of three remote examination sites in Hawaii; and Further maturation of the technology at Joslin.

SECOND YEAR PLAN AND FUNDING NEEDS

In Year 2 we will have accomplished the following objectives:

- Provide DOD and VA diabetes patients cost-effective access to the benefits of annual retinal examination, diagnosis, and treatment as necessary to reduce the risk of vision loss;
- Develop the utilization of a quick, efficient and easily acceptable method of screening for diabetes at remote sites;
- Demonstrate efficient and effective methods to improve the metabolic control for patients with diabetes.

Anticipating early implementation in November of 1997, Joslin began procuring the necessary equipment to carry out the project. To date, Joslin has expended approximately \$2 million, without any reimbursement from Federal funds. This has been a particular challenge for a nonprofit institution whose annual shortfall is made up through gifts from foundations and private donors.

Joslin was a little naive in the preparation of the budget we prepared for the current fiscal year. We were not aware that at each stage of DOD review and decision-making, a percentage of the funds available would be deducted for program management and administrative overhead. Nor did we anticipate several unforeseen expenses required by the Department of Defense. We are also now faced with a budget from the VA for \$500,000 for the two-year period for their participation in this project. As a result, the bare bones budget we submitted last year has been reduced to an insufficient level. DOD have officials recognized and appreciated Joslin's plight in this regard. The DOD program managers have indicated that they will support a second year budget of \$6.4 million to assure that this important initiative can proceed.

In total, assessments by DOD and VA are projected at \$2,000,000 from the funds we had originally budgeted for this two year project.

The supporting detail for the second year request is in the final stages of preparation. We are grateful that we have the programmatic support of DOD in our efforts. We are also very fortunate that DOD understands the budget and funding issues, and will support the second year effort at \$6.4 million.

Mr. Chairman, in order to implement this project properly, and conduct the project in the manner and under the terms established by DOD and the VA, we will require an appropriation of \$6.4 million in fiscal year 1999.

Mr. Chairman, that concludes my brief statement. We are pleased to be a part of this project with the Department of Defense and appreciate your Committee's support.

I would be pleased to answer any question from you or any other Members of the Subcommittee.

Senator STEVENS. Senator Domenici.

Senator DOMENICI. Mr. Chairman, I wonder if I could ask one question about diabetes.

Senator STEVENS. Please.

Senator DOMENICI. Do you know, Doctor, whether in the military at large there is a system of screening for diabetes among all the members of the armed forces?

Dr. QUICKEL. There is an initial screening at the time people enter active duty. But of course the families are never screened, and the dependents are never screened. And then the VA becomes responsible for a long period thereafter. But there is screening of active duty military when they first come on line.

And, in fact, they are not permitted to come on line, I do not believe, if they do have diabetes.

Senator DOMENICI. But is there a screening for those who have been in a long time, do you know?

Dr. QUICKEL. I think it is probably screening that is very similar to what is done in the civilian world: when you do interact with the medical system, somebody will get a blood sugar and screen you at that point in time.

Part of what we are proposing here, though, is a very simple means of screening that would be applicable—you could do it on annual basis, with very little expenditure.

Senator DOMENICI. Senator Inouye, the reason I asked the question is that you and I know that, in the United States, the population that has the highest propensity for diabetes is the Indian population, and second behind that is the Hispanic. And it would be interesting to know if you could take a large group of American military who had been in for a long time, and find out how many were Indian, and see if they had the same high level, which might give us some answer as to how much is environmental and how much is genetic.

Dr. QUICKEL. Yes.

Senator DOMENICI. But he is not the fellow to ask that question.

Dr. QUICKEL. And we are especially interested in Hawaii, because the civilian population of Hawaii, on the average, has the highest prevalence of diabetes, as a whole population. Although, as you know, in the Southwest, the American Indians are probably the highest of all.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator STEVENS. Thank you very much.

Dr. QUICKEL. Thank you.

Senator STEVENS. At this time, I do not mean to be rude, but I would say do not be naive enough to spend your own money again. [Laughter.]

Let us make sure they give you what we appropriated for you.

Dr. Jerome Odom, the Coalition of EPSCoR States.

STATEMENT OF JEROME ODOM, PH.D., CHAIRMAN, COALITION OF EPSCoR STATES

Dr. ODOM. Thank you, Mr. Chairman and members of the subcommittee, for the opportunity to appear in support of the Department of Defense Experimental Program to Stimulate Competitive Research, sometimes known as DEPSCoR. My name is Jerry Odom, and I am Executive Vice President for Academic Affairs at the University of South Carolina. However, today, I am appearing as Chairman of the Coalition of EPSCoR States.

The Coalition supports the Defense Department's budget request of \$10 million for the Defense EPSCoR program. However, we respectfully urge the subcommittee to appropriate an additional \$15 million for this productive program. The Defense EPSCoR program is funded through the University Research Initiative. EPSCoR is a research and development program, initiated by the National Science Foundation. Through a merit review process, EPSCoR helps researchers, institutions and States improve their research capabilities and quality in order to compete more effectively for non-EPSCoR research funds.

Based on the positive results of the National Science Foundation program, Congress established the Defense EPSCoR program in the 1995 National Defense Authorization Act. Mr. Chairman, some

of the most important scientific breakthroughs and innovative technologies that have changed our modern world have been produced by university-based scientists and engineers, supported by the Defense Department's research and development efforts. University-based research helped to develop new technologies and new ideas that have made fundamental contributions to a strong national defense.

I would like to cite just a few examples of some of the research being conducted in the EPSCoR States that support the Department's national defense mission. Alabama researchers are working on thermoelectric materials and devices for cooling small, microelectric components. This work will provide important technological components for the very small computers and other electronic devices of the future.

The DEPSCoR program funded a unique molecular beam facility and scanning tunneling microscope at the University of Arkansas. Researchers believe it is possible to more carefully design semiconductor fabrication and to produce semiconductor structures with interfaces of the highest quality seen. Based on new concepts developed through this DEPSCoR-sponsored research, the Arkansas researchers expect to develop the fastest transistor ever.

Engineers and scientists at the University of Louisville and the University of Kentucky have established an Electro-optics Research Institute to design cutting-edge optical pattern recognition systems.

Mississippi State University's researchers, working with the Naval Oceanographic Office, are developing an oceanographic database and the tools needed to support the automated extraction of information from this database.

University of South Carolina scientists, working in automatic target recognition, antisubmarine warfare, surface modelling, and simulation methods, have produced literally hundreds of research papers and theses. This has been widely recognized as one of the Navy's most successful research programs.

Vermont researchers are working on a new technique to fabricate materials that could ultimately contribute to the construction of a computer which operates through optical signal communications, allowing very high-speed communications, approaching the speed of light.

Another group in Vermont is working on electromagnetic radiation and wave propagation that has applications to ground- and foliage-penetrating radar.

The Coalition appreciates the subcommittee's longstanding support for Defense EPSCoR. We recognize the tight fiscal constraints. But we would urge you to invest an additional \$15 million, increasing the funding to \$25 million.

Thank you, Mr. Chairman.

Senator STEVENS. Thank you very much. I appreciate your being with us.

[The statement follows:]

PREPARED STATEMENT OF JEROME ODOM

Mr. Chairman and members of the Subcommittee, I thank you for the opportunity to submit this testimony regarding the Department of Defense Experimental Program to Stimulate Competitive Research (DEPSCoR).

My name is Jerry Odom. I am Provost and Executive Vice President for Academic Affairs of the University of South Carolina. I am appearing today as Chairman of the Coalition of EPSCoR States and testifying on behalf of the states¹ that are eligible to participate in the Experimental Program to Stimulate Competitive Research (EPSCoR).

The Coalition of EPSCoR States supports the Defense Department's budget request of \$10 million for the Defense EPSCoR program, but we respectfully urge the Subcommittee to appropriate an additional \$15 million for this productive program. The Defense EPSCoR program is funding through the University Research Initiative (PE 61103D).

EPSCoR is a research and development program initiated by the National Science Foundation. Through a merit review process, EPSCoR is improving our Nation's science and technology capability by funding research activities of talented researchers at universities and non-profit organizations in states that historically have not received significant Federal R&D funding. EPSCoR helps researchers, institutions, and states improve their research capabilities and quality in order to compete more effectively for non-EPSCoR research funds. EPSCoR is a catalyst for change and is widely viewed as a "model" Federal-state partnership.

Based on the positive results of the NSF program, Congress created EPSCoR programs in six additional federal agencies. One of these is the Defense Department. The individual agency EPSCoR programs help researchers and institutions in participating states improve the quality of their research so they can compete for non-EPSCoR research funds. The federal-wide EPSCoR effort funds only merit-based, peer reviewed programs that work to enhance the competitiveness of research institutions and increase the probability of long-term growth of competitive funding.

EPSCoR relies heavily on state involvement and participation, including non-federal matching funds. Due to the federal/state partnership upon which EPSCoR relies, EPSCoR is often considered a model program, and is a wise use of taxpayer funds during these difficult fiscal times.

DEPSCoR contributes to the states' goals of developing and enhancing their research capabilities, while simultaneously supporting the Defense Department's research goals. DEPSCoR grants are based on recommendations from the EPSCoR state committees and the Department's own evaluation and ranking. It also builds research competitiveness by fostering collaborations and developing human resources. Research proposals are only funded if they provide the Defense Department with research in areas important to national defense.

DEPSCoR was originally authorized by Section 257 of the National Defense Authorization Act of 1995 (Public Law 103-337), which states that the Defense EPSCoR program's objectives are to:

- enhance the capabilities of institutions of higher education in eligible states to develop, plan, and execute science and engineering research that is competitive under the peer-review systems used for awarding Federal research assistance; and
- increase the probability of long-term growth in the competitively awarded financial assistance that universities in eligible states receive from the Federal Government for science and engineering research.

Last year the Defense Department issued an announcement of a competition under the aegis of the Defense EPSCoR program. A total of 260 projects were received from the 19 states eligible to participate in DEPSCoR. Following review of the individual projects by the appropriate research office (the Army Research Office, the Ballistic Missile Defense Organization, the Office of Naval Research, or the Air Force Office of Scientific Research) 55 projects were selected for funding with \$16.4 million made available in fiscal year 1997. The average award was \$295,000. Subsequently, the Department announced the selection of 72 additional projects for funding with \$18 million made available in fiscal year 1998. The average of those awards was \$250,000.

Mr. Chairman, some of the most important scientific break throughs and innovative technologies that have changed our modern world have been produced by university-based scientists and engineers supported by the Defense Department's R&D efforts. University based research helped to develop new technologies and new ideas that have made fundamental contributions to a strong national defense. Among the major contributions over the years have been radar, nuclear power, digital computers, lasers, vaccines and new drugs to fight diseases that debilitate service personnel. Not all of the innovative discoveries developed in university laboratories have

¹ Alabama, Arkansas, Idaho, Kansas, Kentucky, Louisiana, Maine, Mississippi, Montana, Nebraska, Nevada, North Dakota, Oklahoma, Puerto Rico, South Carolina, South Dakota, Vermont, West Virginia, and Wyoming.

been as profound as these, but each in turn has made small contributions to maintaining America's technological superiority.

As Secretary Cohen has said: "How wisely we invest in research today will greatly influence the readiness of our future forces to succeed when called to protect our national interest."

I would like to site a few examples of some of the research being conducted in our states that supports the Department's national defense mission.

- Researchers in Alabama have received funding for work on thermoelectric materials and devices for cooling small microelectronic components, work that will provide important technological components for the very small computers and other electronic devices of the future.
- DEPSCoR funded a program in the Physics Department at the University of Arkansas, a unique molecular beam facility. For the first time it will be possible to control the growth of semiconductor devices, as opposed to growth by chance. Using new equipment purchased through DEPSCoR, these researchers believe it is possible to more carefully design semiconductor fabrication. Another piece of equipment, a scanning tunneling microscope, has enabled them to produce semiconductor structures with interfaces of the highest quality ever seen. Based on new concepts developed through DEPSCoR-sponsored research, the Arkansas researchers expect to develop the fastest transistor ever.
- Engineers and scientists at the University of Louisville and the University of Kentucky have established an Electro-Optics Research institute to design cutting-edge optical pattern recognition systems.
- Mississippi State University researchers working in partnership with the Naval Oceanographic Office are developing a knowledge discovery system consisting of an oceanographic database and the tools needed to support the automated extraction of information from the database. This project will aid scientists at NAVOCEANO in the identification and characterization of geologically similar regions of the ocean floor and the development of a prototypical system that uses acoustic imagery to geologically define the ocean floor.
- Likewise, DEPSCoR-funded scientists in Mississippi are working with the Navy's Large Cavitation channel facility to solve problems Navy submarines experience when operating in the shallow waters of the Persian Gulf and other littoral regions, where uncommanded depth charges during high speed maneuvers could place submarines at risk.
- Clemson University's electrical and computer engineers have created a focused research initiative in mobile wireless battlefield communications. The program is supporting research that is making improvements in soft-decision decoding of convolution codes that results in higher throughput, lower delay and increased reliability in communication networks on the battlefield. The program is not only serving DOD needs and meeting private sector interest but has also achieved a level of recognition that is attracting gifted students and producing graduates which make an immediate impact as future employees because of their excellent background in wireless networks at a very competitive time.
- With the aid of DEPSCoR funding to the University of South Carolina's mathematicians, chemists and engineers are making significant contributions to defense programs in Automatic Target Recognition, Antisubmarine Warfare, Surface Modeling and Simulation Methods. The program involves more than thirty researchers and ten postdoctoral fellows, has produced literally hundreds of research papers and theses and has been recognized as one of the Navy's most successful research programs in recent years.
- University of Vermont researchers are working on new techniques to fabricate materials that could ultimately contribute to the construction of a computer which operates through optical signal communications allowing very high-speed communications, approaching the speed of light. Likewise, others are conducting research for the Air Force in electromagnetic radiation and wave propagation with applications to ground and foliage penetrating radar. And a DEPSCoR-supported chemist received the largest grant ever given to St. Michael's college for work in development of alternative high energy density hydrocarbon fuels, propellants and explosives.

These are a few examples of the types of activities the EPSCoR Coalition believes will benefit the Defense Department and should strengthen and expand. This is why we believe additional funds should be made available for fiscal year 1999.

Given the success of the EPSCoR programs in South Carolina and other states, it is not surprising that we are very interested in and enthusiastic about the future of the Defense EPSCoR program. It has been our experience that the EPSCoR programs yield a return far beyond the original investment. EPSCoR allows the states to accomplish more than is possible through the regular research programs. It has

helped South Carolina attract and retain young researchers who are able to demonstrate through EPSCoR support of their research, that they have bright futures in fields of research that are of interest to the Defense Department.

At its core, DEPSCoR, in conjunction with the NSF EPSCoR effort, supports quality peer-reviewed research, but also builds the research infrastructure that improves our overall competitiveness. It contributes collaboration, strategic thinking and broad scale planning, and development of a shared research vision by the state. South Carolina is making good use of Defense EPSCoR in concert with and complementary to the other agency research initiatives.

Mr. Chairman, on behalf of the Coalition of EPSCoR States, I would like to express the Coalition's support of the Defense Department's fiscal year 1999 request for its basic research program (functions 6.1 and 6.2). Likewise, we believe the University Research Initiative, which provides essential support for researchers and scientists throughout the country, should be funded at the \$216.3 million level requested in the budget.

The Coalition appreciates this Subcommittee's long-standing support for Defense EPSCoR and we urge to continue that support. The Coalition recognizes the very tight fiscal constrains this Subcommittee faces in the new era of a balanced federal budget, but we respectfully request that you provide \$25 million for the Defense EPSCoR program for fiscal year 1999 as the University Research Initiative.

The Defense Department's Experimental Program to Stimulate Competitive Research is a wise and worthwhile investment of scarce public resources. It will continue to contribute significantly to efforts to build the scientific and engineering research efforts in support of national defense needs.

Thank you for your consideration of this request.

STATEMENT OF MARTIN B. FOIL, JR., CHAIRMAN, BRAIN INJURY ASSOCIATION, INC.

Senator STEVENS. Martin Foil, Chairman of the Brain Injury Association.

Mr. FOIL. Chairman Stevens, Senator Inouye, Senator Domenici, thank you very much for letting me be here this afternoon.

My name is Martin B. Foil, Jr., and I come before you today as the father of Philip Foil, a young man with a severe brain injury. I serve as the voluntary Chairman of the Brain Injury Association. I am also the Chairman and Chief Executive Officer of Tuscarora Yarns in Mt. Pleasant, North Carolina.

I receive no compensation from the Brain Injury Association for the programs I am testifying about here today. Rather, I do contribute considerable amounts of my own money to the Association primarily because, Mr. Chairman, we want to help improve the lives of persons with brain injury. And I am here because I care. I care about the 9 million Americans living with brain injury, and their families.

The Defense and Veterans Head Injury Project [DVHIP] and the Violence and Brain Injury Project [VBIP] are collaborative efforts among the DOD and the Veterans Affairs and the Brain Injury Association. Together we serve not only active duty military personnel, of whom some 7,000 a year suffer brain injury, but we are an important resource to veterans and the civilian population, as well. Therefore, our programs are exemplary cases of dual-use funding.

And I am pleased to report to you today that our collaborative efforts are continuing to pay off. By increasing the return-to-duty rate of military personnel and improving the efficiency of medical services provided, DOD does realize significant cost savings. We have many accomplishments this year, including expanding our patient registry, treatment and referral network. Our Brain Injury Resource Center, developed by our Association, is now available in

60 locations across the country, including select DOD hospitals and VA hospitals, as well as civilian facilities.

Our toll free help line receives 15,000 calls a year, helping not only military personnel but civilians with brain injury and their care-givers. We have increased our prevention and educational programs to include Brain Building Basics, a violence prevention and brain injury awareness program for adults with low literacy skills, including incarcerated populations. Our Head Smart Schools Program is used in 21 States, the District of Columbia, and educates over 130,000 children. We have seven Head Smart community programs in the military.

We are embarking on research for neuro-behavioral problems to help military personnel return to work. We are especially excited about new functional MRI technology, which helps create diagnostic criteria for mild and moderate brain injury, which are significant problems in the military. This research will be valuable to maintaining readiness, by discerning who is capable to return to active duty.

Brain injury is the silent epidemic, the largest killer and cause of disability among young people. We need to do more. We need to help our military by continuing to be ready. We need your support, sirs, for \$8.5 million in funding, so that DVHIP and VBIP and our Association can carry on our unique partnership.

PREPARED STATEMENT

Thank you very much, and God bless you. I am ready to answer any questions.

Senator STEVENS. Thank you very much.

There are no questions.

Mr. FOIL. Thank you very much, sir.

[The statement follows:]

PREPARED STATEMENT OF MARTIN B. FOIL, JR.

Mr. Chairman and Members of the Senate Defense Subcommittee: My name is Martin B. Foil, Jr. I am the father of Philip Foil, a young man with a severe brain injury, and I serve as voluntary Chairman of the Brain Injury Association. I am also the Chief Executive Officer and Chairman of Tuscarora Yarns in Mt. Pleasant, North Carolina.

I appreciate the opportunity to provide testimony regarding the Defense and Veterans Head Injury Program and the Violence and Brain Injury Project. Both programs are collaborative efforts among the Departments of Defense and Veterans Affairs and the Brain Injury Association, which address the prevention and treatment of brain injury in the military and civilian sectors. I respectfully request that you support level funding of \$8.5 million for these programs.¹

I urge your support for these programs on behalf of the Brain Injury Association (BIA). BIA is a national, non-profit organization dedicated to promoting awareness, understanding and prevention of brain injury. This is done through education, advocacy, research and community support services that lead toward reduced incidence and improved outcomes of persons with brain injuries.

I receive no personal benefit or monetary gain from the programs I will discuss. I am providing this testimony simply because I care about the 9 million Americans living with brain injuries and their families. In compliance with Committee Rules, enclosed is a copy of my resume along with a statement regarding the funding that BIA received last year, to conduct its share of these two programs.

¹ The Department of Defense proposed \$7 million for fiscal year 1999. Thus, we are requesting an additional \$1.5 million to keep our services available to the military and civilian communities.

My testimony will summarize some significant accomplishments that the DVHIP and VBIP achieved in 1997, and what we, through the BIA, expect for the coming year.

Brain Injury in the United States and the U.S. Military

The General Accounting Office (GAO) recently reported to the Congress that traumatic brain injury is the leading cause of death and disability in young American adults. In addition, between 1.5 and 2 million individuals across the United States sustain a traumatic brain injury (TBI) each year. The GAO published its findings in its February 1998 report, entitled "Traumatic Brain Injury: Programs Supporting Long-Term Services in Selected States."

Each year, approximately 7,000 brain injury patients are admitted to military and VA hospitals. This number does not include personnel who experienced mild brain injury, concussions, or those receiving emergency room treatment and early release. The cost to the military has been estimated at \$30 million annually in medical retirement payments.

Defense and Veterans Head Injury Program

The Defense and Veterans Head Injury Program (DVHIP) is a close collaborative program among the Department of Defense (DOD), the Department of Veterans Affairs (VA), and the Brain Injury Association (BIA). It is an integrated, multidisciplinary disease management system focusing on both peacetime and combat traumatic brain injury (TBI). Its activities span the spectrum of brain injury from prevention, education, and advocacy, to clinical care and clinical and laboratory research focused on TBI.

The collaborative efforts of the DVHIP, contribute to our nation's preparedness by helping service members return to work, as well as provide critical support to keep families together during the difficult times after brain injury.² It is a prime example of a dual use program.

The DVHIP's primary objectives are:

- To ensure that DOD and VA patients with brain injury receive specialized evaluation, treatment, and follow-up, while at the same time, conducting integrated clinical and clinically-linked laboratory research studies that seek to define optimal cost effective treatment for TBI;
- To facilitate treatment of TBI resulting from combat and training operations including identification and follow-up (as in our Vietnam Head Injury Study), as well as deployment of pharmacologic and other therapies that will minimize the brain swelling and secondary tissue injury which accounts for most of the morbidity after TBI.

In an ongoing effort to fulfill these primary objectives, the DVHIP has developed and is in various stages of carrying out six specific activities: (1) Establishment and maintenance of peacetime and combat TBI patient registries; (2) Establishment of a regionally distributed, integrated, national DOD/VA TBI referral network; (3) Establishment of standardized patient outcome evaluations which define the short and long-term neurologic, cognitive, behavioral, and psychosocial consequences of TBI; (4) Evaluation of the effectiveness and relative cost efficiency of alternative TBI rehabilitation strategies; (5) Conduct pharmacologic trials of both neuroprotectant and symptomatic agents; and (6) Conduct clinically-linked laboratory projects.

The Brain Injury Association and the DVHIP

In close collaboration with the Brain Injury Association, the DVHIP has developed extensive educational programs and materials, primary prevention resources, and community support services. For instance, BIA has developed a Brain Injury Resource Center™ (BIRC) which provides easy access to a multi-media computer library through a touch-screen monitor and program that allows users to learn about brain injury at a personalized pace. The BIRC combines still and motion video, graphics, text and sound to give users access to information vast enough to fill a small library. The completely interactive multimedia computer system is now avail-

²Last year at Walter Reed Army Medical Center, we achieved a 70 percent return to work rate.

able in over 60 locations across the country, including select DOD and VA hospitals.³ Civilian facilities have also purchased the BIRC for use across the nation.⁴

The Information and Resources Department of BIA acts as a clearinghouse of community service information and resources. BIA's toll-free Family Helpline receives more than 15,000 calls each year from individuals whose lives have been affected by brain injury, including military personnel and their families. Three full-time information specialists are trained to answer questions, offer appropriate information and identify additional resources for all incoming callers. Last year, a DVHIP Information and Resources Training was held to assist specialists serving persons whose lives have been affected by brain injury. BIA also developed and distributed a 1997 Information and Resource Training and Reference Manual. In addition, BIA designed a specialized DVHIP Case Manager Resource and Training Manual for use by military personnel and veterans assisting individuals with brain injury.

BIA supports research in areas of brain injury that have a direct effect on returning military personnel to work. As cited in the February 1998, GAO Report to Congress, neurobehavioral problems following TBI are a major factor in successful reentry into the workforce. Working with a major university, BIA and the DVHIP supports a fellowship program and a significant research effort aimed at ameliorating this large problem. In addition, BIA and the DVHIP will be utilizing the functional magnetic resonance imaging technology (fMRI) to create diagnostic criteria for mild and moderate brain injury which are significant problems in the military. This research will be valuable to maintaining readiness by discerning who is capable of returning to active duty.

BIA is currently revising and updating educational brochures which feature background information on brain injury, the DVHIP, and the lead and network DVHIP sites. The brochures will be provided to military veterans and personnel with brain injury as well as family members when they are seen at any one of the military or Department of Veterans Affairs Medical Centers. They will also be provided to referral sources in both military and civilian sectors in an effort to increase awareness of the DVHIP and to increase accessions to the research protocol.

In the coming year, we look forward to strengthening the DOD/VA registry and referral network in our 24 sites, and establishing new sites in an effort to identify and serve more military patients. Our patient evaluation program will be strengthened and a TBI screening instrument will be developed and fielded. Randomized rehabilitation treatment trials and pharmacologic trials will be expanded, as will the supporting clinically-linked laboratory studies. Four new initiatives are planned to begin this year: a post-traumatic epilepsy multi-center therapeutic prophylaxis trial; combat training "mild" TBI performance-outcome and neuroprotection studies; a smaller epidemiological study of TBI outcome by gender; and the use of new techniques such as functional magnetic resonance imaging (fMRI) and MRI spectroscopy.

³ Denver Veterans Affairs Medical Center, Denver, CO; Hines Veterans Affairs Medical Center, Hines, IL; Lyons Veterans Affairs Medical Center, Lyons, NJ; Madigan Army Medical Center, Tacoma, WA; Memphis Veterans Affairs Medical Center, Memphis, TN; Minneapolis VA Medical Center, Minneapolis, MN; Palo Alto VA Medical Center, Palo Alto, CA; Portsmouth Naval Medical Center, Portsmouth, VA; Richmond VA Medical Center, Richmond, VA; San Diego Naval Medical Center, San Diego, CA; Seattle Veterans Affairs Medical Center, Seattle, WA; Walter Reed Army Medical Center, Washington, DC; Wilford Hall Air Force Medical Center, San Antonio, TX; Womack Army Medical Center, Portsmouth, VA.

⁴ Baptist Hospital of Miami, Miami, FL; Brain Injury Association National Office, Washington, DC; Brain Injury Association of Illinois; Carolinas Medical Center, Charlotte Institute of Rehabilitation, Charlotte, NC; Christ Hospital, Chicago, IL (on loan from Brain Injury Association of Illinois); Crumley and Associates, Asheboro, NC; Harborview Medical Center, University of Washington, Seattle, WA; Hill, Peterson, Carper, Bee & Dietzler, Charleston, WV; Inova Center for Rehabilitation at Mount Vernon Hospital, Alexandria, VA; Jackson Memorial Hospital, Ryder Trauma Center, Miami, FL; James A. Haley VA Medical Center, Tampa, FL; Kennedy Krieger Institute, Baltimore, MD; Macomb Hospital Partial Day Program, Warren, MI; Mary Free Bed Hospital, Grand Rapids, MI; Mary Free Bed Hospital, Grand Rapids, MI (on loan from Simkins and Simkins, Northville, MI); Northwestern Medical Center, Chicago, IL; Nunn & Greene Law Office, Bloomington, IN; Ohio State University, Columbus, OH; Rehabilitation Institute of Chicago, Chicago, IL; Roger C. Peace Rehabilitation Hospital, Greenville, SC; Santa Clara Valley Medical Center, San Jose, CA; Shepherd Center, Atlanta, GA; St. Mary's Medical Center, Minneapolis, MN; State of Arizona's Council on Head and Spinal Cord Injury (3 systems); University of California-Los Angeles (UCLA) Hospital, Los Angeles, CA; University of Maryland Medical Center, Shock Trauma Center, Baltimore, MD; University of Pennsylvania Hospital, Philadelphia, PA; University of Virginia Medical Center, Charlottesville, VA.

The Violence and Brain Injury Project

The Violence and Brain Injury Project (VBIP) represents a collaborative effort of the Brain Injury Association, the Department of Defense and the National Institutes of Health (NIH). The VBIP brings the expertise of the DOD and NIH along with the advocacy and community support experience of the Brain Injury Association to bear on all aspects of the problem of violent behavior, emphasizing a medical/biological approach. It is based on the hypothesis that brain injury is a significant risk factor for violent behavior.

The Project has three principle components:

(1) The VBIP Core Diagnostic Protocol, initially conducted at the U.S. Disciplinary Barracks at Fort Leavenworth, Kansas, includes standardized neurologic, neuropsychological, psychiatric, magnetic resonance imaging (MRI), advanced electroencephalographic, clinical and experimental laboratory, and psychosocial evaluations of violent versus non-violent inmates.

(2) The second component involves the integration of the Brain Injury Association's HeadSmart® injury and violence prevention program into the curricula of DOD dependent schools. The HeadSmart Schools Program is the foremost prevention initiative promoted by the Brain Injury Association. It is a brain injury and violence prevention program for elementary and preschools that teaches about brain development and the prevention of intentional and unintentional brain injuries. It provides educators with training and materials to integrate brain injury and violence prevention messages into their regular curriculum. (It is not a set curriculum in itself).

The program is currently being used in 121 schools in 21 states plus the District of Columbia. We have trained 487 elementary and preschool educators on the basics of brain injury and violence prevention—affecting the education of over 130,000 children.⁵

(3) The third component encompasses several family oriented programs, including a Parenting and Literacy Skills and Brain Building Basics program for inmates in local correctional systems. The VBIP recently completed the three-year development of the Brain Building Basics Program which has also been successfully implemented with non-incarcerated populations, focusing on persons with low literacy skills.

In addition, VBIP established Changes, Choices, and Challenges (CCC), a violence prevention program that provides educators with integrated learning units which are designed to enhance the social, moral, and intellectual development of young adolescents.

Publications completed by the VBIP include a comprehensive prevention manual, the Be HeadSmart Community Prevention Manual, a tool designed to provide information and resources to assist in the dissemination of the HeadSmart program; Brainy Bear's HeadSmart Habits, a parent-child activity book for violence and brain injury prevention; and a 1998 HeadSmart Schools Calendar developed from contributions from children at our HeadSmart Schools. The calendars present the comprehensive violence and brain injury prevention messages incorporated in the HeadSmart program.

We look forward to building upon all three components of the VBIP in the coming year and expanding our prevention efforts.

Conclusion

In conclusion, the work of the DVHIP and VBIP is a significant contribution to the health and readiness of the United States military. We respectfully request funding to continue these important programs. An appropriation of \$8.5 million (\$1.5 million over the DOD's request) will represent level funding (since fiscal year 1997).

Thank you, and God bless you!

STATEMENT OF DENNIS M. DUGGAN, DEPUTY DIRECTOR, NATIONAL SECURITY-FOREIGN RELATIONS DIVISION, THE AMERICAN LEGION

Senator STEVENS. Dennis Duggan, Deputy Director of the National Security-Foreign Relations Division of the American Legion. We welcome you as a comrade.

⁵ 1997 Sites receiving HeadSmart Trainings and other violence and injury prevention programs include: Be HeadSmart Military Communities such as Fort Bragg, North Carolina; Fort Knox, Kentucky; Fort Campbell, Tennessee; Fort Bliss and Fort Sam Houston, Texas; West Point, New York; and Wright-Patterson Airforce Base, Ohio.

Mr. DUGGAN. Thank you, sir. And on behalf of our nearly 3 million members, the American Legion is extremely grateful to you, as always, and the members of your distinguished subcommittee, for the opportunity to present its view with regard to this fiscal year 1999 defense budget.

As we are all aware, this budget represents the 14th consecutive year of decline. As Americans, we do tend to take our secure environment for granted. Yet, as all of us as veterans, we do have a unique appreciation for a strong national defense.

The fiscal year 1999 defense budget is currently running on the order of about \$150 billion less than defense budgets during the Reagan years. As we know, the armed forces have incurred more than their share of spending and manpower cuts in order to achieve a balanced budget.

Senator STEVENS. Mr. Duggan, some people in the back cannot hear you. Can you move that microphone toward you, please?

Mr. DUGGAN. How is this?

Senator STEVENS. Fine. Thank you.

Mr. DUGGAN. In our collective view, the United States can and should afford a higher level of defense spending, especially with regard to manpower and readiness. Our current recruiting and retention trends are beginning to demonstrate that men and women, young men and women, are seriously questioning the value of military service. Frequent family deployments, diminishing health care, inadequate pay raises, and substandard housing are all contributing to the trend, we feel.

We do congratulate you and members of your subcommittee for your tremendous support for a strong national defense and for adequate budgeting. There are just a few points, Mr. Chairman, we would like to emphasize. First of all, in our view, we believe that the current military retirement plan is broken and in need of a stabilized, guaranteed and better-paying plan. The so-called retirement formula should be scrapped and a more substantial plan implemented, coupled with significant basic pay and allowance raises.

Without the assurance of a good military retirement plan and adequate health care, few will make the sacrifice, we believe, to serve in the armed forces.

Second, the services are now in a compensation war with a strong economy. Yet there appears to be no strategy for the military to survive in an intense labor market. In our view, the only way to fix the pay problem is to change the pay raise process, to link military basic pay raises with full employment costs indices. We hope that the Senate goes along with the proposed 3.6 percent pay raise proposed in the House.

And, third, the readiness of the armed forces, as we all believe, I think, has suffered as a result of many of these changes. And, finally, Mr. Chairman, as we know, the mortality rate of our old, World War II and Korean War veterans is roughly over 30,000 per month. We certainly cannot wait an awful lot longer, on the order of 5 to 7 years, for a real strong health care plan. And we ask your assistance, as you mentioned, for the closure of the Federal Employees Health Plan Benefits [FEHPB] as another alternative for military retirees and their dependents.

Mr. Chairman, that completes my statement. Thank you very much.

Senator STEVENS. Any questions, gentlemen?

[No response.]

PREPARED STATEMENT

Senator STEVENS. Well, we thank you for the Legion's normal and usual good job in reviewing what we are trying to do. We appreciate your advice, and keep in touch with us as we go along. Thank you very much.

Mr. DUGGAN. Thank you.

[The statement follows:]

PREPARED STATEMENT OF DENNIS M. DUGGAN

Mr. Chairman, The American Legion is pleased to appear before this subcommittee to express its concerns about the fiscal year 1999 defense appropriations. As Americans, we tend to take our secure environment for granted. Yet as veterans, we have a unique appreciation for a strong national defense and recognize and accept the high cost associated with that endeavor.

The proposed fiscal year 1999 defense budget is roughly \$150 billion less than during the Reagan presidency. Defense spending levels during fiscal year 1998 are about three percent of the gross domestic product (GDP). A decade ago it was six percent. Mr. Chairman and members of this subcommittee, military personnel and their families have incurred their fair share of spending cuts to help achieve deficit reduction. The American Legion believes it is now time for Congress to bolster defense spending with some of the monies from the projected surplus.

The United States can, and should, afford a stronger national defense, especially with regard to quality of life and modernization. Quality of life and modernization are directly related to military readiness and have a direct impact on recruitment and retention. Current recruiting and retention trends are already starting to demonstrate that young men and women are seriously questioning the value of military service. Frequent family separations, diminishing health care, inadequate pay raises and substandard housing are contributing to this trend. Servicepersonnel and military retirees are seeing the promises of lifetime health care being broken and other benefits being reduced or eliminated. The American Legion believes military service is an awesome responsibility and a privilege that embody the highest form of service to the nation. Congress should also recognize this commitment by honoring past promises. Promises made must be promises kept.

READINESS

The administration asserts that the fiscal year 1999 defense budget protects readiness. The same claim was made regarding previous defense budgets as well. However, over-optimistic assumptions about actual funding requirements coupled with multiple unbudgeted contingency operations have resulted in a series of unit readiness problems. Training goals have not been met; and military readiness ratings have plunged due to reductions in operations and maintenance accounts as a result of unprogrammed and continued peacekeeping operations. If the 1998 Defense Supplemental Appropriations bill is not immediately passed, readiness may be reduced again. Additionally, the Army is having difficulty meeting its recruiting goals and the quality of recruits has been dropping. Personnel turbulence and the erosion of quality of life are weakening each of the military services. These kinds of personnel readiness problems will begin to place our ability to wage high intensity conflict at risk.

ACTIVE FORCE PERSONNEL ISSUES

The American Legion is concerned that a number of influences, to include the military drawdown, pose significant and often underestimated retention and readiness risks for the remainder of the decade.

Mr. Chairman, The American Legion and the Armed Forces owe you and your subcommittee a debt of gratitude for your strong support of military quality of life issues. Nevertheless your assistance is needed now more than ever. Positive congressional action is needed in this budget and future budgets to overcome old and new threats to retaining the finest military in the world. Servicemembers and their

families have endured physical risks to their well-being and livelihood, substandard living conditions, and forfeiture of personal freedoms that most American civilians would find unacceptable. Worldwide deployments have increased significantly, and a smaller force has had to maintain a higher optempo with longer work hours and increased family separations.

Throughout the drawdown years, military members have been called upon to set the example for the nation by accepting personal financial sacrifices. Their pay raises have been capped for years, and their health care system has been overhauled to cut costs, leaving military families with lessened access to proper health care. We congratulate the Congress for their quality of life enhancements contained in the Fiscal Year 1997 and Fiscal Year 1998 National Defense Authorization Acts. But more must be done now.

Military Retirement.—In our view, the current military retirement plan is broken and in need of a stabilized, guaranteed, and better paying plan if the Armed Forces are to retain a quality force. Congressional tinkering with the military retirement system is likely leading to a decrease in combat readiness and could threaten national security. The American Legion has not adopted a position with regard to a 401(K) plan for servicemembers. Certainly, many servicemembers are opting out prior to retirement and others are likely to retire at their earliest opportunity.

Essentially, the military has two choices: Revoke the redux-retirement formula to retain good servicemembers who are often taken for granted and/or substantially increase active duty pay and allowances. Knowing that a secure and adequate retirement, including medical care, awaits a member and family at the end of a long, arduous career makes the hazards of military service bearable. Without that assurance, few will make the sacrifice.

The marked decline in quality of life features for the active force and military retirees, coupled with heightened operational tempos, will continue to adversely impact on both recruiting and retention. If these benefits, like health care, commissaries, adequate pay and quarters all of which were taken for granted in the past, are funded at significantly reduced rates, or are privatized or eliminated completely, they will only serve to undermine the United States Government's effort to honor its obligations to its active and retired warriors.

Full Military Pay Raises.—The Services are now in a "compensation war" with the private sector, yet have no strategy to survive in the competitive labor market. The military appears to be undergoing unacceptable retention losses. The armed forces must have high-quality servicemembers who can apply changing technology to combat capabilities. Since 1982, military raises have lagged a cumulative 12.9 percent behind private sector wage growth. The Bureau of Labor Statistics measures private sector wage growth with a tool called the Employment Cost Index (ECI). Before 1994, federal civilian and military raises were supposed to match the ECI. But in 1994, new legislation took effect, capping federal civilian raises at one-half percentage point below the ECI. The difference was used to fund a "new locality pay" additive for federal civilians that varied by geographical location. When the pay raise standard for federal civilians changed to "ECI minus one-half percent," service members got stuck with the half-point reduction in their pay raises, even though they are not eligible for the civilian locality pay.

The only way to fix the problem is to change the pay raise process to link military basic pay raises to the ECI, the full ECI. The military drawdown continues and the economy is in full swing. A smaller force with a high operations tempo will be extremely retention-sensitive. Servicemembers have earned and deserve a raise at least equal to the average American's for every year not just during an election year. It is time to put that standard into law.

The administration's budget describes the proposed fiscal year 1999 3.1 percent raise, which is one-half percentage point smaller than the private sector wage growth, as "the maximum raise allowed by law." Mr. Chairman, 11 pay caps in 15 years are already too many, and continuing this practice is a sure prescription for eventual retention disaster. Mr. Chairman, The American Legion also strongly believes this subcommittee should exert every effort to adequately compensate those hundreds of military families from having to rely on monthly food stamps and women's and infants compensation (WIC).

Housing Allowances.—Two years ago, Congress took on the challenge of restoring these allowances to be more consistent with their original intent of covering 65 percent of servicemembers' median housing expenses, by grade and location. Thanks to this subcommittee, much progress has been made to ensure housing allowance stability for the duration of a servicemember's tenure at a duty location and to provide allowances at each location sufficient to obtain adequate quarters for junior personnel. But there is still some distance to go. The military is three years into what was intended as a five-year program to restore the Basic Allowance for Quarters (BAQ)

to the standard originally set by Congress, an amount that would offset 65 percent of the national median housing cost for each grade.

Members of the Armed Forces and their families should not be expected to live in unsafe or substandard housing in the United States or overseas. If government housing is not available on base, servicemembers should have the option of occupying leased government quarters off base. Members should not be sent into high-cost, high-crime areas to fend for themselves.

Commissaries.—Any effort to reduce or dismantle the integrity of the military commissary system would be seen as a serious breach of faith with a benefit system that serves as a mainstay for the active and reserve components, military retirees, 100 percent service-connected disabled veterans, and others. The American Legion urges the Congress to preserve full federal funding of the military commissary system and to retain this vital non-pay compensation benefit which, we believe, is essential to the morale and readiness of the dedicated men and women who have served, and continue to serve, the national security interests of the United States. Furthermore, The American Legion fully supports the full-time usage of commissary stores by members of the reserve components.

Surveys consistently indicate that the career incentive value of the commissary benefit is second only to military retirement pay and health care. The commissary benefit also provides significant additional “psychological value” that reinforces the sense of reciprocal commitment between the military institution and its members and plays a clear role in retention decisions. The American Legion opposes any effort by the Department of Defense to relegate military commissaries to the Services and to preserve the Defense Commissary Agency.

DOD HEALTH CARE FOR MILITARY RETIREES

Today, there are approximately 8.5 million beneficiaries in the military health care program. Military retirees and their dependents make up nearly one-half of that number, and over 500,000 retirees have lost or will lose their access to military health care as a result of the closure of approximately 45 percent of military treatment facilities. Access to affordable health care, regardless of age or health care status, represents the number one concern among military retirees. The Sense of the Congress resolution in the Fiscal Year 1993 National Defense Authorization Act reaffirms the basis of health care promised in law and tradition dating back more than 100 years. Until recently, military retirees were always led to believe that they were entitled to free lifetime health care as a major promise made in exchange for meager pay received and after having served 20 or more years in the most demanding and dangerous of professions.

The American Legion receives letters daily from veterans citing the string of broken promises, and the growing list of benefits under attack. Medicare-eligible military retirees and their dependents are prohibited from enrolling in the TRICARE program. Nine states have no military treatment facilities, some 39 military hospitals were closed, 17 more downsized to clinics, a 30-percent reduction in medical personnel, and severe reductions in military medical funding. Certainly alternatives are needed such as the authorized option of military retiree veterans and their dependents, over and under age 65, to voluntarily enroll in the Federal Employee Health Benefits Program (FEHBP).

Military retirees are the only group of Federal “employees” who lose their health care benefits when they become 65 and are no longer eligible for CHAMPUS or TRICARE but become Medicare-eligible. Medicare covers much less than TRICARE, and must be supplemented by expensive health care supplement insurance which many military retirees cannot afford. The average military retiree is an E-6 Staff Sergeant or Petty Officer and not a Lieutenant Colonel. Despite its concerns, The American Legion supports full-funding of the TRICARE program, and it strongly believes that Medicare-eligible military retirees and their dependents should continue to have access to and treatment at military treatment facilities. Furthermore, all military retirees and their dependents should continue to receive free prescriptions from military medical centers.

The American Legion has had a number of concerns, however, with the DOD TRICARE Health Care System as it affects military retirees, namely, that military retirees and their dependents are required to pay annual “enrollment fees” and co-payments which are likely to increase over time. In addition, questions remain concerning provider reliability and the viability of Medicare reimbursement for treatment in DOD facilities; and TRICARE Prime health care requires both portability and reciprocity. Many military retirees do not reside near TRICARE providers. The American Legion believes that, as a minimum, the following guidelines should be incorporated or retained as part of the TRICARE package or any reform of military

health care for active duty families, military retirees and their dependents and military survivors:

- Timely access to military medical treatment for a continuum of quality, comprehensive and equitable health care benefits covering the full array of services ranging from preventive health care and dental treatment plans to prescription services for all military retirees, their dependents, and military survivors regardless of age and health care status. Defense dental plans need to cover the more expensive dental procedures.
- Preservation of the space-available system in military treatment facilities for TRICARE and Medicare eligible military retirees and their dependents.
- TRICARE coverage should continue for the lifetime of military retirees and not end at age 65.
- Medicare subvention should be implemented nationwide on a fee-for-service basis, and Medicare eligible retirees should be allowed to participate in the TRICARE program.
- No further military medical facilities should be closed or downsized, and adequate military medical personnel, to include graduates of the Uniformed Services University of Health Sciences, should be retained on active duty to provide health care for active duty personnel and their dependents, and retired military personnel and their dependents.
- Authorize military retirees and their dependents the opportunity to voluntarily enroll in the Federal Employee Health Benefits Program, regardless of age or health care status. For this program to be cost effective for the government and military retirees, we believe it would have to be offered as an option to TRICARE for service members entering retirement.
- Enrollment fees and cost-sharing in TRICARE plans should be reasonable and statutorily fixed by law.
- Pharmacy networks and mail-order pharmacy programs should be extended beyond the 40-mile radius of closing military bases and they should operate on a flat-rate basis rather than one based on percentage of costs.
- There should be no restrictions to preclude military retirees and their dependents from receiving treatment or prescriptions from TRICARE providers outside 40-mile catchment areas.
- The imposition of penalty assessments should be waived for those military retirees who elected not to enroll in Part B of Medicare as they believed they would receive continuing military health care from DOD facilities which were subsequently identified for closure.
- Implementation of the G.I. Bill of Health: the use of Department of Veterans Affairs medical centers by nonservice-connected military retirees and their dependents who are CHAMPUS/TRICARE or Medicare eligible should be authorized. As TRICARE and Medicare providers, VA medical centers should be authorized to bill the Departments of Defense and Health and Human Services for medical care provided to these veterans. Unlike military treatment facilities there are VA medical care facilities in all the states to include Alaska and Hawaii.
- Transferring TRICARE coverage for active duty families and families of military retirees should be facilitated when they transfer or move between TRICARE regions.
- The American Legion opposes any further efforts to privatize medical care delivered in military treatment facilities.

The American Legion is supportive of a broad array of options to provide medical care to military retirees and their dependents, particularly those who are age 65 and older. As mentioned, these military beneficiaries should have access to military treatment facilities with the implementation of Medicare subvention. The major drawback to Medicare subvention, of course, will be access to military medical treatment facilities (MTF's). The drawdown of MTF's, and their usage by active duty personnel, their families, and TRICARE retirees and their dependents, will exacerbate the existent space problem that would be faced by dual eligible Medicare eligible military retirees and their dependents. These retirees and their dependents could, however, be treated by TRICARE civilian providers using TRICARE cost-shared rates or, hopefully, they will be authorized to participate in FEHBP plans.

Mr. Chairman, the nation has an obligation to do better. We believe there is a moral obligation for the government to find a way to provide at least the same level of health coverage to military retirees that it already provides to every other federal retiree.

OTHER MILITARY RETIREE ISSUES

The American Legion believes strongly that quality of life issues for retired military members and families also are important to sustaining military readiness over the long term. If the government allows retired members' quality of life to erode over time, or if the retirement promises that induced them to serve arduous military careers are not kept, this will undoubtedly inhibit retention in the current active duty force.

Accordingly, The American Legion believes Congress and the administration must place high priority on ensuring that these long-standing commitments are honored. They include maintaining regular military retiree pay COLA's and insuring that military retirement pay systems are not further diminished; deleting Social Security offsets to the Survivors' Benefits Plan; authorizing the concurrent receipt of both military retiree pay and VA disability compensation for the most severely disabled retirees; and conducting hearings on the Uniformed Services Former Spouses Protection Act.

QUADRENNIAL DEFENSE REVIEW

Since the collapse of the Soviet Union in 1991, the United States has conducted two substantial assessments of the strategy and force structures of the Armed Forces necessary to meet the national defense requirements of our country. The assessment by the Bush Administration ("Base Force" assessment) and the assessment by the Clinton Administration ("Bottom-Up Review") were intended to reassess the force structure of the Armed Forces in light of the changing realities of the post-Cold War world. Both assessments served an important purpose in focusing attention on the need to reevaluate the military posture of the United States; but the pace of global change necessitates a new, comprehensive assessment of the current defense strategy for the twenty-first century.

The American Legion, in its adopted mandates, continues to support the force structure proposed by the Base Force strategy, namely, the need for the United States to maintain 12 active Army combat divisions, 12 Navy aircraft carrier battle groups, 15 active Air Force fighter wings and three Marine Corps divisions. The American Legion believes the "win-win" two-war Bottom-Up Review strategy is not realistic with the current force structure; especially with the diversion of division-sized forces in Bosnia and Southwest Asia. With growing worldwide commitments, and with only 10 Army combat divisions and three Marine divisions, the U.S. has a "win-hold" strategy at best.

The Quadrennial Defense Review retains the two-war strategy but reduces the current force structures even further. The National Defense Panel noted that there is insufficient connectivity between strategy and force structures, operational concepts and procurement decisions. We face an even greater array of challenges today with even further resources than were available four years ago. Unfortunately, we are "robbing Peter to pay Paul" by further cutting manpower and bases to pay for modernization.

The American Legion also believes the U.S. can no longer afford to become the world peace enforcer by dispatching forces on unbudgeted operations every time the United Nations passes a resolution to do so. The American Legion believes Congress, as the representatives of the American people, needs to become more involved in the decision-making process regarding the commitment of United States military forces. U.S. forces should be committed only when the vital national interests of our country are at stake and only when such deployments are supported by the will of the American people.

Our past and current National Military Strategies have not matched increased military missions, including military operations other than war, with the required resources. Like the Bottom-Up Review, the QDR provides neither the forces, lift capabilities, nor budgets to fight two nearly simultaneous major theater conflicts and win. Peacekeeping, peace enforcement and humanitarian operations do not train our combat forces for war.

The administration's proposed fiscal year 1999 defense budget supports an active force of 1.396 million and a reserve force of 877,000, down 23,000 and 9,000 respectively from fiscal year 1998. Additionally, the Quadrennial Defense Review advocates further reducing active endstrengths by 36,000 and those of the reserve components by another 42,000. The currently authorized force structure for each service is well below the manpower level designed by former Chairman of the Joint Chiefs of Staff General Colin Powell during the Bush Administration. At the time, the manpower level of 1.65 million was considered the lowest force level the nation could maintain and still meet its global requirements. The rapid, deep reductions

are having a negative impact on the All Volunteer Force which is imperative for a strong national defense.

In conclusion, the true measure of whether a defense policy adequately protects our national security interests is not necessarily how much is spent on defense, but whether the armed forces will have the means to fight and win when conflict arises. America's national security well-being cannot be separated from the overall national well-being. The American people cannot view themselves from a position of relative weakness in the world. If we fail to lead, our own future will be shaped by others.

Mr. Chairman, this concludes The American Legion statement.

STATEMENT OF CYRUS M. JOLLIVETTE, VICE PRESIDENT FOR GOVERNMENT RELATIONS, UNIVERSITY OF MIAMI

Senator STEVENS. Now we have Cyrus Jollivette, from the University of Miami.

Mr. JOLLIVETTE. Good afternoon, Mr. Chairman and members of the subcommittee. I am privileged to be here today to represent my colleagues in the University of Miami.

I submitted a written statement earlier, Mr. Chairman, that I ask be included in the record.

Senator STEVENS. All of the statements are included in the record by your appearance.

Mr. JOLLIVETTE. Thank you, sir.

In that statement, I mentioned several initiatives. But today I want to focus on one particularly involving health. Because I want, first of all, to state how great your interest is in health; it is commendable. And also to say how much my colleagues at the University of Miami appreciate your leadership in supporting various health initiatives, particularly in the area of cancer.

Cancer is a scourge. It does not spare anyone, based upon their age, sex, ethnic background, or socioeconomic status. And we know that eventually basic research will lead to the discovery of the causes and hopefully cures for this dreaded disease. However, research already exists that has given us tools for prevention and early detection that will reduce the suffering from cancer until a cure can be found.

We at the University of Miami have an approach to biomedical research that is applying the basic scientific knowledge we already obtained in the populations in clinical settings, which is a key component of the research at the University of Miami. And by applying this knowledge, we can reduce the morbidity and mortality and improve the quality of life for all.

The resources in Miami, the University's School of Medicine's Sylvester Cancer Research Center and the bachelor treatment center and pediatric oncology project and early detection breast cancer program, in collaboration with Jackson Memorial Hospital, make this concentration of research staff, education and treatment one of the most unique resources in the Nation for confronting and fighting cancer, in our opinion.

Ours is a unique patient database, unparalleled in the Nation. We utilize all of these resources, and we are in national clinical trials targeted towards minorities. Florida is a bellwether State for many things, including unfortunately a window to the future for disease incidence. Florida has been having a significant increase in some of the most common cancers among minority populations, including prostate and breast cancer. We are developing an ever-greater understanding of the potential and critically important

areas of genetic differences, genetic susceptibility, genetic research, and genetic epidemiology in developing effective cancer prevention and control programs.

These cutting-edge research technologies also allow us to develop successful treatment approaches for high-risk and at-risk populations. Working with community-based research and intervention strategies, University of Miami scientists have developed a broad array of data on the attitudes of different minority populations toward cancer prevention, protection and treatment. An understanding of these populations places us in the unique position to apply the tools we have already developed to reduce cancer incidence.

There are several elements in our cancer program set forth in my statement. And I want to repeat again that the patient treatment and research base at the University of Miami [UM] Medical Center provide for the Department of Defense a high-quality clinical and basic research area, which is strategically located to serve the Nation's current and future military populations. Since SOUTHCOM has recently relocated to Miami, it will be relatively easy for the University of Miami to form a strategic alliance with this group to rapidly translate and apply our findings to the military.

Working with high-risk populations and cancer survivors, two-thirds of whom are African Americans, Hispanic and other ethnically diverse populations, our Miami-based cancer prevention and control program can be of enormous benefit to the Nation's defense forces, which has critical needs and challenges in serving these populations, who are ever more the face of our military forces.

Mr. Chairman, we know you will have a difficult year, and we hope that you will be able to assist us in this initiative. Thank you.

PREPARED STATEMENT

Senator STEVENS. Thank you very much. I noticed in your statement the statistics about breast cancer.

Mr. JOLIVETTE. Yes, the rate of increase in Dade County is over 50 percent. We are having some serious problems.

Senator STEVENS. We have seen examples in other areas of the country. It would be interesting to find out why. We will do our best.

Thank you very much.

Mr. JOLIVETTE. Thank you very much, sir.

[The statement follows:]

PREPARED STATEMENT OF CYRUS M. JOLLIVETTE

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to present testimony on behalf of the University of Miami. The University is seeking your support for four initiatives within your purview: the South Florida Ocean Measurements Center in coordination with the Navy, Florida Atlantic University, and NOVA University; support for the University of Southern Mississippi request for a new fishery-oceanography research ship for research programs in the Southeast U.S., Mississippi, and Texas. Additionally, we ask for your backing for the University's Cancer Prevention, Control and Treatment Initiatives, and the continuation of funding for the North-South Center.

OCEAN MEASUREMENTS TEST FACILITY

The shallow water environment is an extremely difficult one. Nearly all naval systems are limited in performance by the severity and variability of conditions near the coast. Weapons systems such as torpedoes and ASW sonar systems were developed

and optimized for the deep ocean and do not perform well in shallow water. Prediction of near-shore environmental conditions requires knowledge of the interactions between offshore currents, estuaries and atmospheric forcing.

The unique capability of the South Florida Ocean Measurements Center and the partnership between academic scientists from three Florida universities and the Navy provides the opportunity to meet the significant need for science and technology development efforts in the near-shore environment. The Navy test range is a unique location in that it is the nearest approach of the continental shelf to shore along the entire Atlantic seaboard. University atmospheric and oceanographic scientists, and ocean engineers are increasing their understanding of the near shore acoustic environment and pursuing development of AUV sonar and other related technologies.

\$2.75 million in continued funding is requested for this program in fiscal year 1999. We are convinced that this consistently funded, long-term partnership provides the best benefit to the scientific community and the Navy. By bringing together oceanographic and atmospheric scientists with Navy testing and cable-laying experience, this funding will continue to provide the Navy with science and technology development where the environment is observed and understood.

OCEANOGRAPHIC RESEARCH VESSEL

The University of Miami Rosenstiel School of Marine and Atmospheric Science supports the proposal by the University of Southern Mississippi Institute of Marine Sciences for construction of a Class III (approximately 190-foot) research ship for the Gulf of Mexico. We agree that a new fisher-oceanography research ship, with the capability to conduct complex, interdisciplinary research in the shallow water regions of the Gulf Coast and Intra-America Sea, is vitally needed to support academic research programs.

The ship would be operated by the existing Southeast Consortium for Oceanographic Research (SECOR), as part of the University-National Oceanographic Laboratory System (UNOLS) fleet. Membership in SECOR now includes three of the ship-operations institutions in the Southeast and Gulf, which are the University of Miami, University of Texas and Texas A&M. We anticipate that the University of Southern Mississippi will be added in the very near future.

UNOLS is appraised of and supports the existing SECOR arrangement, which provides dockside facilities in Galveston, Texas, and Miami, Florida, and coordinates instrumentation use and marine technician support among SECOR members. In these times of increased competition for funding and increased need for affordable ship-time from non-ship-operating institutions, we strongly believe that only through resource sharing can we effectively manage costly ship operations. SECOR has the resources and is prepared to manage a new Class III ship on behalf of the Coast Guard research community. Support of this project benefits all academic institutions in the southeastern U.S. and the Gulf of Mexico.

NORTH-SOUTH CENTER

The mission of the North-South Center is to promote better relations and to serve as a catalyst for change among the United States, Canada, and the nations of Latin America and the Caribbean. The North-South Center conducts programs of research, public outreach, education, training, and cooperative study. It publishes and disseminates policy-relevant information on the Americas. Its programs and activities also foster linkages among academic and research institutions, NGO's, governmental institutions both civilian and military, and philanthropic and private sectors throughout the Americas.

The North-South Center and Hemispheric Security Issues

The Center has been deeply engaged in promoting and sponsoring research and dialogue on inter-American security issues, especially since the onset of federal funding support in 1991. Among other issues, the Center has conducted an extensive research program on drug trafficking in the Hemisphere. It has studied and promoted dialogue on the crises in Cuba, Panama, and Haiti. It has engaged in research in civil-military relations, conflict resolution, and security cooperation. Among other issues, it has followed closely the Peru-Ecuador border conflict, in which the United States has acted as one of the primary "guarantor" powers. The Center hosted, in December 1996, an international conference attended by 58 scholars and government officials from eight countries in the Americas to assess the impact of that conflict on inter-American relations.

The relocation of the U.S. Southern Command to Miami in late 1997 has afforded an enhanced role for the Center in security issues. The Center figured prominently

in discussions on the future of civil-military relations in the Hemisphere at a recent conference with key Latin American military officials sponsored by the U.S. Southern Command and the U.S. Army War College. In December 1997, the Center founded the "Miami Security Roundtable" with the cooperation of the University of Miami School of International Studies, the Latin American and Caribbean Center of Florida International University, and the U.S. Southern Command headquarters in Miami. Three meetings of the Roundtable held thus far have brought together, in an informal setting, thirty or more academic experts and staff members of the U.S. Southern Command to discuss the latest security issues in the Americas, including drug trafficking and transnational crime. The Center's Issues report on inter-American security cooperation has been well-received in academic and professional circles. We are currently preparing a monograph in the Center's Agenda paper series entitled "Building New Security Relationships in the Americas: The Critical Next Steps" for release in mid-May 1998 and a new Issues report on environmental security in the Americas, to be published in June 1998.

To sum up, the Center is committed to advancing the state of security cooperation in the Americas. It serves as a bridge between government officials dedicated to enhancing regional security and academic and other civil society experts who have devoted their professional lives to analyzing the Hemisphere's critical security issues. We believe that Hemispheric cooperation on security issues can multiply the impact of United States policy initiatives generally and overcome historically profound cultural and political gaps between North and South.

HIGH PRIORITY CANCER PREVENTION, CONTROL AND TREATMENT INITIATIVE

Cancer is the number two cause of death in America. It does not spare anyone based on their age, sex, ethnic background or socio-economic status. We know that basic research will eventually lead to the causes and hopefully cures for this dreaded disease. However, research has already given us tools for prevention and early detection that will reduce the suffering from cancer until cures can be found. The programs that we have listed as part of our initiative will apply these tools in a variety of settings for prevention, control, and treatment, especially in multi-ethnic, diverse, minority populations. This translational approach to biomedical research, that is, applying the basic scientific knowledge we have already gained to populations in clinical settings, is a key component of the research at the University of Miami. By applying this knowledge, we can reduce the morbidity, mortality, and improve the quality of life for all our citizens.

Model Cancer Prevention and Control Programs

Introduction

The University of Miami School of Medicine and Sylvester Comprehensive Cancer Center provide the nation with a truly unique and unparalleled resource for focused basic, applied and clinical cancer research and treatment of multi-ethnic, diverse, minority cancer patients. The medical center has had a major and continuing role nationally in all of these areas. Additionally, because of our location, we play a critically important role in national clinical trials targeted toward minorities.

Florida is often called the "bellweather state" or "window to the future" for disease incidence. The state has been having a significant increase in some of the most common cancers among the minority populations including prostate and breast cancer. We are developing an ever-greater understanding of the potential and critically important areas of genetic differences, genetic susceptibility, genetic research and genetic epidemiology in developing effective cancer prevention and control programs. These cutting-edge research technologies also allow us to develop successful treatments for approaches to high-risk and at-risk populations.

Working with community-based research and intervention strategies, University of Miami scientists have developed a broad array of data on the attitudes of different minority populations toward cancer prevention, detection and treatment. An understanding of these populations places us in a unique position to apply the tools we have already developed to reduce cancer incidence. While the Sylvester Comprehensive Cancer Center has studies in many areas, there are major programs on early detection, treatment and prevention of prostate and breast cancer. These diseases are highly unpredictable, but tend to occur at younger ages and to be more aggressive in minority populations. The cancer activities included with this initiative will greatly assist the Department of Defense in accomplishing their mission.

The University of Miami/Sylvester Comprehensive Cancer Center Prevention and Control Program includes six key elements: (1) Early Detection, (2) Primary and Secondary Prevention Research, (3) Special Populations, (4) Genetic Epidemiology

and Research, (5) Molecular Epidemiology, and (6) the Courtelis Center for Research and Treatment in Psychosocial Oncology.

Each of these elements can contribute effectively to the needs of our nation's military population. The patient treatment and research base at the University of Miami Medical Center offers the Department of Defense high quality clinical and basic research which is strategically located to serve the nation's current and future military populations. Since SOUTHCOM has recently relocated to Miami, it will be relatively easy for the University of Miami/Sylvester Comprehensive Cancer Center to form a strategic alliance with this group to rapidly translate and apply our findings to the military.

Working with high risk populations and cancer survivors, two-thirds of whom are African-American, Hispanic, and other ethnically diverse populations, this Miami-based program in cancer prevention and control can be of enormous benefit to the nation's defense forces—which has critical needs and challenges in serving these populations. They are evermore the “face” of our military forces. They need the potential of this expanded and targeted clinical research and treatment, and cancer prevention and control, techniques in order to carry out their mission as guardians of our liberties.

The Courtelis Center for Research and Treatment

A major component of the Miami-based initiative is the Courtelis Center for Research and Treatment in Psychosocial Oncology. This unique facility is dedicated to providing cancer patients, including and especially ethnically diverse and minority populations, with coordinated programs and services critical to effective cancer treatment and outcomes. The research carried out at the Courtelis Center, including psychological and social research, treatment, support services, and counseling, are recognized as being critically important in effective cancer treatment, as well as for cancer control and prevention. The Center is also engaged in cutting-edge studies on the role of stress in the development, prevention, and treatment of cancer. They have focused on the functioning of the immune system affected by chronic stress and other psycho-social factors on depression of the immune system, and ultimately their impact on cancer incidence, prevention, and control. These studies are recognized nationally.

These applied clinical research and treatment initiatives should be of enormous potential and service to our nation's military as it strives to more effectively support and maintain its ethnically diverse population.

Federal Funding Objectives/Requests

Accordingly, we see the following federal participation in this coordinated, comprehensive cancer prevention and control initiative.

- \$5 million to more fully develop the cancer prevention and control initiatives especially focusing on the needs of ethnically diverse, minority populations given the increased incidence of cancer, including prostate and breast cancer, among minorities;
- to expand the applied cancer research, clinical research, treatment, prevention and control strategies in six critical areas: (1) Early detection; (2) Primary and Secondary Prevention Research; (3) Special Populations; (4) Genetic Epidemiology and Research; (5) Molecular Epidemiology; and finally (6) to expand the resources and capabilities of the Courtelis Center for Research and Treatment.
- to coordinate our efforts with SOUTHCOM to improve the efficiency and effectiveness of our military forces.

PEDIATRIC ONCOLOGY AND THE BATCHELOR CHILDREN'S RESEARCH CENTER

Introduction

The Department of Pediatrics at the University of Miami School of Medicine and its Batchelor Children's Research Center comprise one of the largest academic pediatric departments in the United States, with a total faculty and staff of over 700. It ranks nationally among the top departments of pediatrics as rated by NIH peer-reviewed, competitively designated funding awards. In response to the rapidly growing needs in pediatrics, the serious shortage of quality space, and the critical necessity to consolidate and coordinate the vast research resources and facilitate effective collaboration, the University of Miami School of Medicine and the Department of Pediatrics are now developing one of the major children's research facilities in the United States—a \$27 million, 100,000 square foot complex for which private funding has already been secured.

A major component of this initiative will be pediatric oncology—for which at least one full floor will be dedicated. This will ensure that there is an unparalleled, con-

solidated, coordinated, interdisciplinary research effort on pediatric oncology which will focus on unique and critically needed research, treatments, and populations.

Indeed, among the major objectives will be the focus on what is a uniquely diverse multi-ethnic clinical and research patient population in South Florida. The Miami Batchelor Center has perhaps the largest and most ethnically diverse minority population in the nation—a population which more closely mirrors that of America's military population than anywhere else in the country. We work with a pediatric population that participates in large major national treatment protocols providing a critically needed, concentrated and effectively organized multi-ethnic, minority component not found elsewhere. The Batchelor Children's Research Center treats a significant percentage of newly-diagnosed pediatric cancer cases in the nation annually, with the majority coming from under-served, minority populations.

As such, the Batchelor Children's Research Center can offer the Department of Defense and our nation's military an extraordinarily promising program of basic, applied and clinical research, training, and treatment, that will be especially critical and well focused for its current and future needs.

Specific Objectives and Activities

Clinical Capacity in Bone Marrow Transplantation and Potential for Application in Young Adult Populations

The Miami-based project is one of the leading sites in the country for pediatric bone marrow transplantation including such innovative techniques as Cord Blood Transplantation. This project works closely with one of the nation's public hospitals, Jackson Memorial Medical Center, which has more than 7,000 births per year of largely minority and ethnically diverse children. The Miami team has the best potential nationally to provide a Transplantation Cord Blood Bank that can more effectively treat cancer in minority populations. The rich supply of stem cells in this dedicated blood supply will provide the opportunity of collaborating with other institutions and matching successfully recipients for bone marrow transplantation. There is an absolutely critical need for such an effective blood supply for successful treatment in minority, culturally diverse populations. This precious resource must not only be enlarged, but more effectively stored, genetically tested and typed, frozen, and preserved for future treatment needs of these ethnically diverse populations. Only a few institutions nationally have the potential supply and access for such diverse populations as the Miami team. The Batchelor Children's Research Center, the Department of Pediatrics, and Jackson Memorial Medical Center need additional resources to develop the full potential of this clinical research. There is, indeed, future potential for older teenagers and young adults, but much more work needs to be done to more fully examine these applications. This unique blood transplantation resource and research focus could be especially important to the children of our nation's military, also a largely ethnically diverse population, and ultimately, it is hoped, to the treatment of cancer of young adults in the military.

FEDERAL FUNDING OBJECTIVE/REQUESTS

We seek support for the following elements of this far-reaching initiative:

- Fully-matched federal participation in an expanded basic and clinical research effort that focuses on the potential application of these cutting-edge blood transplantation treatment technologies in minority, ethnically diverse populations, and to ultimately more fully explore application to older children and young adults—\$2 million.
- Fully-matched federal participation in the development of the critically needed laboratory and blood storage facilities needs of the Batchelor Children's Center—\$2 million.

BREAST CANCER EARLY DETECTION PROGRAM

Introduction

Of the 600,000 new cancer cases in females estimated to occur in 1998, 178,700 or 30 percent will be breast cancer. One out of nine women is at risk of developing this disease and breast cancer remains a leading cause of death in women. The incidence in minority women is increasing at an alarming rate, while that in white women continues to decline. This trend has occurred nationally, but is particularly relevant to South Florida with its large numbers of minority populations.

Background

Breast cancer is a problem of major public health importance in Miami-Dade County where one out of every 8.5 cases of breast cancer in Florida is diagnosed. Another alarming trend is that late-stage disease, in which there are very few good

treatments available, is rising at an alarming rate. It increased 32 percent in Miami-Dade County while decreasing 21 percent in the rest of the state. In 1995, 33 percent of breast cancers in Miami-Dade County white women were diagnosed after the disease had spread to the regional lymph nodes or distant sites, compared to 52 percent among black women. The Early Breast Cancer Detection Program (EDP) is one of the finest demonstrations of an effective partnership between a public and private entity. The University of Miami School of Medicine and the Jackson Memorial Medical Center have formed an impressive team which has an extremely high profile in the community in providing services to the primary health care centers, and its partnership with other organizations. It sets the University of Miami and Jackson Memorial Medical Center apart from other hospitals and medical centers, and it is one of the reasons that these entities received the American Association of Medical College's Community Service Award. Since the EDP was instituted in 1987, it has resulted in a significant shift in the stage of breast cancer upon first presentation as we will describe later.

However, the ability of the current EDP to meet the needs of Miami-Dade County is deteriorating quickly due to the lack of funds. Furthermore, although the EDP has two operational mammography vans, funds are only available to operate one of them. The waiting time for women seen by the EDP at some primary health care centers has increased to six months. There are more than 150,000 medically underserved women over age 40 in Miami-Dade County who are potentially in need of the UM/JMMC early detection program services.

Breast cancer screening has been proven to identify early, smaller lesions which are more treatable and at lower cost and result in a higher quality of life. Medically under-served minority women who are not screened for breast cancer are at extremely high risk concerning the rapid progression of this disease.

Breast Cancer in Miami-Dade County

A recent analysis of breast cancer data from the Florida Department of Health shows that while the percentage of late-stage breast cancer (at time of diagnosis) has fallen between 1981 and 1995, in Miami-Dade County, the percent decrease is smallest for Miami-Dade County non-whites. For U.S.-born, non-white women, the "gap" between the percentage of late-stage diagnosis in Miami-Dade County and elsewhere in Florida widened, but narrowed for non-U.S. born women of all races and for U.S.-born white women. Late stage disease among non-whites comprises an increasing percentage of breast cancer—increasing by 32 percent, while decreasing by 21 percent in the rest of the state. The most frightening statistic is that 33 percent of breast cancers in Miami-Dade County white women were diagnosed as late stage compared to 52 percent among black women.

Screening in the Early Detection Program

Since 1987, there have been 27,197 women seen through the EDP, and 39,733 mammograms have been performed. However, because of declining financial support for this program, services have had to be dramatically reduced. For example, in 1996 4,845 women were screened, but this number fell by 28 percent in 1997. The number of monthly visits in the EDP has fallen from a high of 509 to a low of 156. This is particularly distressing since it is well known that detection of breast cancer in its early stages provides more treatment options and potentially curative procedures.

While there has been both a local and national increase in the utilization of mammography as a tool in the diagnosis of breast cancer, we have noted that even in the past year, many of the women who are screened through the EDP have never been previously screened. This is especially true for minority women.

Stage of Breast Cancer Diagnosis

EDP data illustrate a shift from later to earlier stage cancers from 1987 to 1997. The percentage of minimal cancers (less than 1 cm. including Stage 0) detected was 45 percent between 1987–1992 and increased to 67 percent in 1993–1997. In contrast, the percentage of late stage disease cancers (Stage III and Stage IV) decreased from 15 percent in the first time period to 7 percent in the final time period.

Survival

Because of the strong association between stage and survival, the dramatic shift to earlier stage diagnoses, with the appropriate follow up treatment, should result in an increased survival of EDP patients. Compared to the Jackson Memorial Hospital staff patients and to patients enrolled at the inception of the EDP program in 1987–1998, five year survival of EDP patients showed increases from less than 50 percent to 75 percent.

The Early Breast Cancer Detection Program: A Community Partnership

The strength of the early detection program has always been the partnerships with the community. Beginning with the initial commitment of the Harcourt M. and Virginia W. Sylvester Foundation, the University of Miami/Jackson Memorial Medical Center, the Sylvester Comprehensive Cancer Center, the primary health care consortium, the American Cancer Society, and two retired, dedicated South Florida physicians, the EDP has been able to obtain significant financial support. Unfortunately, a significant proportion of EDP support is decreasing or has already been terminated.

Population At Risk/In Need

In 1996, there were an estimated 47,500 women in Miami-Dade County receiving Medicaid assistance, between the ages of 40 and 64. There were an additional 114,000 women in Miami-Dade County receiving Social Security or retirement income. Therefore, there are a total of 161,500 women who could be considered to be in need of EDP. This large figure is likely to be an underestimate, since there are at least three other groups of women who are not considered in these calculations; the "working poor," (i.e., women not receiving state or federal assistance), women 62–65 who receive Medicare, and non-residents of Miami-Dade County.

Cost of Screening/Cost Effectiveness

Several studies have shown the cost effectiveness of early detection/screening programs for breast cancer. Although studies differ on the actual cost to treat breast cancer (e.g., due to different locales, choices for treatment, facilities), all analyses have found that costs increase with later (delayed) stage at diagnosis, with approximately a three- to five-fold higher cost for Stage IV disease compared to Stage 0 disease. For example, several studies have estimated costs for Stage 0 disease as averaging \$20,300 and increasing to \$58,900 for State IV disease.

Implications for Practice

There is convincing scientific evidence that mammography and other screening examinations can be an effective means of secondary prevention: nevertheless, a review of the literature leads to an unequivocal conclusion that there are major differences between the numbers of women considered to be at risk (or in need of such screening services) and the numbers who receive them. The at risk/screened discrepancy is particularly pronounced among minority women, who are more likely to be economically disadvantaged and who also have higher mortality rates from breast cancer. The effective implementation of early stage strategies is extremely important in reaching the goal of reduced mortality from cancer in "under-served, under-utilizing" populations. Increasing use of breast cancer screening in primary care settings and providing health delivery linkages to ensure follow up procedures are widely recommended in order to provide opportunities for those who might not otherwise be included in mass screening programs.

The experience of the EDP suggests that it is both feasible and effective to reach socio-economically disadvantaged minority women, with low or no cost cancer screening services. This is clearly demonstrated by the number of women utilizing screening who have had no previous mammogram and by the increase of minimal cancers and the decrease in late stage cancers detected. Additionally, the data are among the first to provide information on screening of medically under-served minority women of differing age groups, particularly those 40–49 years of age.

The success of the EDP has been influenced by several factors, including preliminary needs assessment and initial planning, the development of a community based coalition, recruitment of medically under-served minority women through outreach strategies, ensuring continuity of care as well as focus on community education.

Mammography provides an example of a proven technology for reducing late stage and increasing early stage breast cancer detection, and the University of Miami/Jackson Memorial Medical Center is effectively delivering this technology especially among the medically under-served.

BUDGETARY REQUEST

We are requesting \$1.5 million per year for the next five years to support the breast cancer early detection program. With these funds we could increase the number of women screened from an average of 15 per day to 50 per day which would result in screening 12,500 per year.

STATEMENT OF JOHN C. EKARIUS, ACTING DIRECTOR OF GOVERNMENT RELATIONS, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY

ACCOMPANIED BY BETTY GALLO, DEAN & GALLO, THE CANCER INSTITUTE OF NEW JERSEY

Senator STEVENS. John Ekarius, Vice President, University of Medicine and Dentistry of New Jersey, please. And you are accompanied by Mrs. Dean Gallo.

Mr. EKARIUS. Thank you, Mr. Chairman. Mrs. Gallo and I appreciate the opportunity to come before you and the committee this afternoon to talk about the important work that is going on in not only the field of cancer but in the field of infectious diseases, as well, and to support and laud your leadership in the work of providing DOD research efforts, particularly in biomedical research and in the areas of applied and basic research for DOD.

Prior to asking Mrs. Gallo, whom you know, Mr. Chairman, from your efforts in the field of prostate cancer awareness, I would like to touch on, just a moment, on infectious diseases and the potential they now pose for a profound threat to national and international security. Changing national conditions, post-Cold War deployment of U.S. troops in new geographic areas, and an increasingly global economy have contributed to a resurgence of infectious microbes. The rapid and repeated exposure to diseases arising in any part of the world is now a reality for military men and women, as well as our citizens at home.

By the year 2000, nearly 600 million people will be travelling internationally, including military personnel. And to combat the rise of infectious diseases, the University of Medicine and Dentistry, which is the largest public health sciences university in the Nation, with campuses in Camden, New Brunswick and Newark, is working on a collaborative effort in Newark, with the International Center for Public Health at University Heights Science Park.

Our key tenant there, the Public Health Research Institute, is already working with the U.S. Army, in collaboration, on infectious disease research, AIDS vaccine research, and providing diagnostic tools for identifying battlefield pathogens in the field. This strategic initiative, we believe, is of critical importance. It has been recognized by Senator Lautenberg and members of the committee last year. And we would ask your support for this effort.

PREPARED STATEMENT

Additionally, the Dean and Betty Gallo Prostate Cancer Institute is located and proposed at the Cancer Institute of New Jersey, located in New Brunswick, an emerging biomedical research city. This Institute is New Jersey's only National Cancer Institute [NCI]-designated center. And I would ask, Mr. Chairman, for your forbearance to introduce Mrs. Gallo.

[The statement follows:]

PREPARED STATEMENT OF JOHN C. EKARIUS

Mr. Chairman, I respectfully present testimony of the University of Medicine and Dentistry of New Jersey (UMDNJ), the largest public health sciences university in the nation. The UMDNJ statewide system is located on five academic campuses and

consists of 3 medical schools and schools of dentistry, nursing, health related professions and biomedical sciences. It also comprises a University-owned acute care hospital, three core teaching hospitals, an integrated behavioral health care delivery system and affiliations with more than 100 health care and educational institutions statewide. No other institution in the nation possesses resources which match our scope in higher education, health care delivery, research and community service initiatives with state, federal and local entities.

I appreciate this opportunity to bring to your attention two of the University's priority projects. The first is an initiative to create an International Center for Public Health that is consistent with the mission of the Department of Defense and its biomedical research agenda.

The second is an initiative to establish a Dean and Betty Gallo Prostate Cancer Institute within New Jersey's only NCI-designated clinical cancer center, the Cancer Institute of New Jersey (CINJ).

An International Center for Public Health at University Heights Science Park

Infectious disease poses a profound threat to national and international security forces. The deployment of U.S. troops to new geographic areas and an increasingly global economy have contributed to a resurgence of infectious microbes. The rapid and repeated exposure to diseases arising in any part of the world is a reality for our military personnel as well as the average U.S. citizen. By the year 2000, it is estimated that some 400 to 600 million people will engage in international travel. Because New Jersey is surrounded by eight international air and seaports, it is especially vulnerable to the spread of global infectious microbes. We have therefore proposed to create an International Center for Public Health as a direct response to this looming public health crisis.

The Center is a strategic initiative to create a world-class infectious disease research and treatment complex to be located at University Heights Science Park, a Federal Enterprise Community neighborhood in Newark, New Jersey.

University Heights Science Park (UHSP) is a collaborative venture of the four institutions of higher education located in Newark—UMDNJ, Rutgers University, New Jersey Institute of Technology (NJIT), and Essex County College, which trains technicians in eleven science and technology fields. Its partners include the City of Newark, Public Service Electric & Gas (PSE&G), The Prudential Insurance Company, First Union National Bank and Bell Atlantic of New Jersey.

The International Center at Science Park will house three core tenants—the Public Health Research Institute (PHRI), the New Jersey Medical School National Tuberculosis Center at UMDNJ and the UMDNJ-New Jersey Medical School Department of Microbiology and Molecular Genetics.

The Public Health Research Institute is a nationally prestigious, 56-year-old biomedical research institute that employs 110 scientists and staff conducting research programs in infectious diseases, (including tuberculosis and AIDS), drug discovery, diagnostic development and the molecular pathogenicity of a broad range of infectious diseases. A major focus of PHRI is the development of the next generation of antibiotics to fight life-threatening, drug-resistant organisms. PHRI will relocate from Manhattan to Science Park, Newark.

The University's National TB Center is one of three Model TB Prevention and Control Centers in the nation funded by the Centers for Disease Prevention Control (CDC). The TB Center will add an important clinical component to the International Center for Public Health, since many TB patients also manifest other infectious diseases.

The University of Medicine and Dentistry of New Jersey (UMDNJ) will be the primary medical center linkage and academic affiliation for the International Center for Public Health (ICPH). Relocating our Medical School's Department of Microbiology and Molecular Genetics will add a staff of 100 to the Center's critical mass of microbiology research.

Since we appeared before this panel last year, a major change in our project has occurred. In October, 1997, a Memorandum of Understanding (MOU) was executed between the State of New Jersey and the International Center. The MOU commits \$60 million of State loan and grant funds toward development of the \$78 million International Center for Public Health. This commitment is now being used to leverage the remaining \$18 million from Federal and private sources.

The International Center for Public Health will contribute to DOD's objectives through the research of PHRI and the National TB Center, and by participating in cooperative programs with foreign governments in the development of policies and initiatives to stem the spread of infectious diseases throughout the world.

We, therefore, respectfully request \$9 million from this Committee to support the construction of an International Center for Public Health at University Heights Science Park, Newark, New Jersey.

Dean and Betty Gallo Prostate Cancer Institute

New Jersey has the tenth highest mortality rate of prostate cancer in the country and ranks eighth in mortality among African Americans with this disease. Currently there is no available curable treatment for prostate cancer once it recurs.

Because of the devastating problem of prostate cancer in New Jersey and the nation, the Cancer Institute of New Jersey (CINJ), the only NCI-designated clinical cancer center in the state, has determined that one of its major goals is to seek a cure for this disease. To accomplish this goal, the CINJ has initiated the development of the Gallo Prostate Cancer Institute, named after the late U.S. Congressman from New Jersey, Dean Gallo, who died of the disease in 1994.

CINJ is affiliated with the University of Medicine and Dentistry of New Jersey (UMDNJ) and is located at our medical school campus in New Brunswick, New Jersey. CINJ is part of a statewide network of teaching hospitals providing access to the highest standard of cancer care to all New Jersey residents. We see about 6,000 prostate cancer patients annually and this number is increasing by about eight percent each month.

The Cancer Institute of New Jersey (CINJ) is the center of excellence for cancer treatment in New Jersey. Our team of staff physicians, scientists and basic science researchers recognize that there is no cure for prostate cancer when it metastasizes. We are concentrating our efforts on developing new ways to treat this devastating disease. Patients are enrolled in five different clinical trials for advanced prostate cancer. CINJ is establishing an integrated working group of nationally recognized experts whose work can be applied to prostate cancer. Through a series of focus groups, CINJ is bringing together the basic scientists and physician/researchers to educate each other to work in collaboration in order to develop new treatments for prostate cancer.

The Gallo Prostate Cancer Institute will be incorporated into the Cancer Institute of New Jersey's statewide network of affiliated hospitals and providers to facilitate treatment and research so that patients with advanced prostate cancer may be enrolled in clinical trials at several locations throughout the state. This will allow for treatment of more patients with novel therapies and it increases our ability to rapidly evaluate these therapies. We are also working with local clinics and agencies on treatment plans for uninsured prostate cancer patients.

The Cancer Institute of New Jersey has recruited investigators from our sister research institutes in New Jersey to study prostate cancer. These researchers are isolating genes involved in the development of prostate cancer and are initiating epidemiological studies to determine the efficacy of screening in African-Americans. They are also studying whether compounds used to prevent other tumors are effective against prostate cancer. Clinical trials based on laboratory experiments are being studied to see how cancer cells develop resistance and ways to make the cells sensitive to therapy.

With the establishment of the Gallo Prostate Cancer Institute, collaborative research such as the projects just described will be expanded. Such an institute is necessary to effectively recruit additional nationally-recognized scientists focused on research and treatment of prostate cancer.

To accomplish our goals, we have developed a five-year budget plan for the Gallo Prostate Cancer Institute for a total of \$9.4 million. We expect to raise substantial funds through private, corporate and other resources. We respectfully seek \$5 million in federal funds to facilitate the establishment of this important resource.

We thank the Members of this Subcommittee for their leadership in supporting nationally and internationally critically-needed research and development initiatives. The Subcommittee is to be commended for its support of university research throughout the country. Your particular role in the support of biomedical research is especially recognized.

Thank you for the opportunity to appear before you on behalf of UMDNJ and two of its priority projects—the creation of an International Center for Public Health and the establishment of the Dean and Betty Gallo Prostate Cancer Institute.

PREPARED STATEMENT

Senator STEVENS. Mrs. Gallo, nice to see you.

Mrs. GALLO. It is good to see you, too, Mr. Chairman. I just want to say that the last time I saw you was back in September, when

we did that short segment with Peter Jennings. And, basically, as you know, my husband was Congressman Dean Gallo, who died of prostate cancer back in 1994. And I am really excited about this initiative within the Cancer Institute, which is our only NCI-designated center in the State of New Jersey, to be able to create the Dean and Betty Gallo Prostate Cancer Institute.

And I just want to thank you for your leadership for cancer, and also hopefully that, with this, you will take in consideration prostate cancer, considering that the funding for it is kind of low, and we need to kind of boost it a little bit. So I am hoping that we can bring some more good researchers into New Jersey.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF BETTY GALLO

I want to thank Chairman Stevens and the committee for allowing me to testify before you.

I am here to speak to you about prostate cancer that took my husband Congressman Dean Gallo from the 11th District of New Jersey from me, his family, friends, his colleagues and his constituents. Dean had the greatest respect for his colleagues in the Senate, some who served with him in the House of Representatives.

I am sure most of you are not aware that when Dean was diagnosed in February of 1992 the prostate cancer had already metastasize to his bone. The Prostate Specific Antigen blood test which in short is the PSA, has a normal range is 1-4. Dean's PSA when diagnosed was 883. His prognosis at the time was 3-6 months. When he saw the urologist in New Jersey he said the only thing he could do for Dean was remove his testicles. When Dean told me this I said I think we need to get a second opinion. Fortunately Dean's staff had referred one of his constituents that had prostate cancer to the National Institutes of Health. Dean went there for a consultation and was accepted for a clinical trial of Suramin and combined hormonal therapy.

We were told by Dean's doctor at NIH, Dr. Charles Myers, that the removal of the testicles would not have been enough. Dean needed a more aggressive form of treatment. This was a very tough adjustment period. Dean had a PSA level drawn once a week in the beginning. Dean was in Washington while I was back in New Jersey waiting for the results. Your whole life revolved around the PSA count: would it go down, would it go up. Trying to keep positive was sometimes very tough, but Dean and I had a very strong love and faith that helped us through the rough times. With all of the combined treatment, love and emotional support, Dean survived 2½ years with a good quality of life. It was the best 2½ years of our 8 year relationship.

I am now working at The Cancer Institute of New Jersey as a Fundraising Associate/Advocate. My main goal at The Cancer Institute is the creation of the Dean and Betty Gallo Prostate Cancer Institute. The Cancer Institute is naming the Institute after Dean because he was a tireless supporter of the people of New Jersey and the Congress of the United States. He believed in making the nation stronger by building and constant improvement and was instrumental in creating CINJ. Because of Dean being diagnosed in the advanced stages of prostate cancer, their efforts to cure prostate cancer are motivated by their memory of his excellent service. The Cancer Institute is NCI-designated and the only one in the State of New Jersey. The Institute has only been opened about 2 years and has already outgrown its facilities. We are currently seeing about 6,000 prostate patients a year and the number is increasing about 8 percent a month. There is no available curable treatment for prostate cancer once it recurs, and when it does, it is fatal.

Prostate Cancer patients who are diagnosed early in the progression of their disease have different treatment options then those who are diagnosed with metastasize disease such as Dean was. At many cancer centers, these patients are seen at different places and even at different hospitals. At The Cancer Institute of New Jersey, we have developed an integrated approach, where all prostate cancer patients are seen in the same clinical setting, and where all physicians who are experts in prostate cancer review the cases together. Thus, each patient is followed regardless of the stage of their disease by various specialists, and each patient has the benefit of medical and surgical expertise continuously reviewing their progress.

The central location of CINJ and its network of affiliated hospitals make CINJ care accessible to virtually all New Jersey residents. In addition to treatment, CINJ

offers patient support groups to assist patients and their families cope with this dreaded disease. Since there is no cure for metastatic prostate cancer the physicians, researchers and directors of CINJ are concentrating their efforts on developing ways to treat this devastating disease.

A requirement for the designation of Clinical Cancer Center by the NCI is that the center establish a strong research component that integrates the best available medical treatment of cancer with nationally recognized basic researchers to find new cures. The CINJ is the only center in New Jersey that has fulfilled this requirement. The CINJ is physically located on the New Brunswick campus of Robert Wood Johnson Medical School. The medical school's nearby Piscataway campus is adjacent to Rutgers University, another globally recognized center of research. Two nationally acclaimed research centers are administrated jointly by RWJMS and Rutgers University. The Center for Advanced Biotechnology and Medicine (CABM) has leaders in molecular biology, including several Howard Hughes investigators. The Environmental and Occupation Health Safety Institute (EOHSI) includes a National Institute of Environmental Health Sciences center of excellence for the study of environmental toxicology.

The study of environmental toxicology could be an important factor in the area of prostate cancer. I am not an expert in this field, but I have spoken to people who have seen cancer concentrated in certain areas. Prostate cancer in New Jersey has the highest incident rate for men. 6,900 men will be diagnosed this year with prostate cancer of which 1,400 will die from this disease. Out of 50 states, number 1 being the worse we are 10th in prostate cancer among the white population and 8th among African Americans. We are not sure if it is due to the way we disinfect our vegetables, feed our cows, pigs and chickens, process our food for shelf life, the source of our water, or the possible pollutes not only underground, but also in the air. We have become a technological society. The possibility that the problem with the environment has built over the years and is now surfacing at such an incredible rate, could be a primary cause of prostate cancer.

CINJ has successfully recruited investigators from the CABM and EOHS specifically to study prostate cancer. CINJ has initiated clinical trials for prostate cancer based on laboratory experiments. These experiments address how cancer cells develop resistance and ways to make the cells sensitive to therapy.

With the establishment of the Gallo Prostate Institute, collaborative research like the projects just described will be tremendously expanded. The Gallo Prostate Institute will allow us to focus the strengths of the CINJ on the devastating problem of prostate cancer in New Jersey, its surrounding region, and in the nation as a whole through treatment and research. Such an Institute is imperative to provide the resources to effectively recruit additional nationally recognized leaders in research into the study of prostate cancer. In order to bring together scientists of this caliber, all focused on prostate cancer, it is imperative to have a strong focused center.

Since there is currently no effective curable treatment for prostate cancer once it progresses beyond the prostate, a concerted effort must be made to develop new treatments. This effort requires two approaches. The first is a comprehensive study of the biological characteristics of the disease at the basic science level. The Cancer Institute of New Jersey is committed to entering the national efforts on this front. We have obtained the technology, for example, to examine the expression patterns of over 10,000 genes from a single tumor sample, using multigene arrays. This will greatly facilitate collaborations between the basic scientists at the various New Jersey academic institutions with the clinical scientists at CINJ.

The CINJ is uniquely suited to scientifically examine the difference in mortality between African Americans and white Americans with the disease, which is a major question in prostate cancer. New Jersey has a large population of African Americans at all levels of income. We can thus investigate how much of the disparity between the mortality of both groups is due to genetic predisposition versus economic status. The scientists at CINJ are more than capable of answering this question, particularly with the additional infrastructure support which will be available once the resources for the Gallo Prostate Institute are acquired.

The proposed budget for the Gallo Institute is \$9.4 million to be spent over a 5 year period. We expect to raise substantial funds through the state and other public, private, corporate, foundations and other resources. We therefore seek an allocation of \$5 million to facilitate the establishment of this important resource for programs, research and education and awareness of prostate cancer. It will not be used for bricks and mortar.

I want to thank Chairman Stevens and the committee again for allowing me to testify. The creation of the Gallo Prostate Institute will be a valuable tool for the State of New Jersey. As in Dean's case, with the help of a Nationally recognized

Cancer Institute he was able to survive 2½ years with a good quality of life and continue to serve the constituents of New Jersey.

Senator STEVENS. Thank you very much, Mrs. Gallo.

As a matter of fact, this afternoon, the retiring Post Master General will come to this building to dedicate the Prostate Cancer Stamp. It will be its first opening here, because we are trying to get greater awareness of the problem.

Mrs. GALLO. That is great.

Senator STEVENS. And I do thank you for coming. We will do our best.

Mrs. GALLO. Thank you.

Senator STEVENS. Thank you very much.

Mr. EKARIUS. Thank you, Mr. Chairman.

Senator STEVENS. Dr. Robert Rubin.

STATEMENT OF ROBERT W. RUBIN, PH.D., PRESIDENT AND CHIEF EXECUTIVE OFFICER, LOVELACE RESPIRATORY RESEARCH INSTITUTE, NEW MEXICO

Dr. RUBIN. Good afternoon, Mr. Chairman. My name is Robert Rubin, and I am President and CEO of the Lovelace Respiratory Research Institute in New Mexico. Our 50-year-old institute is the basic science institute—is the only one in the country—dedicated to the prevention, treatment and cure of respiratory diseases.

For over 40 years, we operated a Federal lab, called the Inhalation Toxicology Institute, for the Department of Energy. This national facility was dedicated to defense issues, centered on the biomedical effects of inhaling dangerous materials, such as radioactive, toxic or bioactive substances. Nineteen months ago, this facility was privatized, and my organization moved all of our scientists to the facility on Kirtland Air Force Base, in Albuquerque, and began the process of making it self-sufficient. This facility, and our Institute, now focus heavily on Department of Defense mission research projects.

This one-of-a-kind large facility is equipped with unique specialty equipment and professional staff found nowhere else. Much of our work is defense related, and I would like to mention some of the most important projects now.

We are now dedicated to the investigation and creation of new technology to combat the ever-growing threat of chemical, radiological and biological warfare on the battlefield or in the urban American setting. With our extensive aerosol science program, inhalation toxicology research group and unique exposure facilities, we serve the various agencies concerned with this growing threat.

We work especially close with Sandia National Labs, which also has a mission to develop new technologies to counter these threats. We are also working with Los Alamos Labs to include their unique capabilities in this consortium.

We propose the creation of a new organization, centered around Los Alamos, Sandia and Lovelace, dedicated to do a permanent, single-purpose research designed to counter threats to combat and civilian personnel posed by the introduction of radioactive, toxic and biological substances through the air. Privatization has allowed us to develop partnerships with industry and government to pursue this line of research, and we will be seeking funding to make this a permanent R&D organization in New Mexico.

An example, Senator, of the type of technology we wish to develop and expand is a joint project with Georgetown University Medical School to create a hand-held drug delivery device, dispensing drugs, called retinoids, that our scientists have shown can induce lung regeneration and reverse or protect lung tissue from damage due to inhaled toxic substances. This will be of direct benefit to the soldier in the field.

Building on this research, we should be able to mount a credible defense against many types of battlefield or urban aerosol chemical and biological threats. This \$6 million project is of special significance to the chemical and biological warfare defense mission.

We also work with the Department of Defense to study Gulf War Syndrome in an attempt to elucidate the possible chemical and physiological mechanisms that may have produced this illness. Such basic research should allow more rational treatment protocols for those individuals so affected, and provide data that can be used in the future to counter similar threats.

Our current efforts center on a study of the role of silicone in the sand breathed by the Desert Storm troops, in combination with pathogens known to be present in the inhaled atmosphere in the region at the time of the action. This study of combinations of inhaled substances that might produce disease is a common theme for us and is the central mission of our new Environmental Protection Agency-funded National Environmental Respiratory Center.

PREPARED STATEMENT

This Center will collaborate with the scientists working on the defense issues to obtain the critical mass of expertise and synergism that produces new ground-breaking research finding. Most of this important defense work has been made possible at reduced costs by the privatization process, which was designed to retain and nurture this unique national resource.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF ROBERT RUBIN

Good afternoon. My name is Robert Rubin, and I am President and CEO of the Lovelace Respiratory Research Institute. Our 50-year-old Institute is the only basic science institute totally dedicated to the prevention, treatment and cure for respiratory diseases. For over 40 years we operated a federal lab called the Inhalation Toxicology Institute for the Department of Energy. This national facility was dedicated to defense issues centered on the biomedical efforts of inhaling dangerous materials such as radioactive toxic or bioactive substances. 19 months ago this facility was privatized and my organization moved all our scientists to this unique facility on Kirtland Air Force Base and began the process of making it self-sufficient.

This one-of-a-kind large facility is equipped with unique specialty equipment and professional staff found nowhere else in the world. Much of our work is defense-related and I would like to mention some of the most important projects and how they relate to current critical national defense issues.

We are now dedicated to the investigation and creation of new technology to combat the ever-growing threat of chemical and biological warfare on the battlefield or in the American urban setting. With our extensive aerosol science program, inhalation toxicology research group and unique exposure facilities we serve the various agencies concerned with this growing threat. We work especially close with Sandia National Labs, which also has a mission to develop new technologies to counter these threats. We proposed the creation of a new consortium of organizations centered around the Sandia/Lovelace relationship, dedicated to permanent single-purpose research designed to counter threats to combat and civilian personnel posed by

the introduction of toxic substances through the air. Privatization has allowed us to develop partnerships with industry and government to pursue this line of research and we seek funding to make this a permanent R&D facility on or next to Kirtland Air Force Base in Albuquerque, New Mexico.

An example of the type of technology we wish to develop and expand is a joint project with Georgetown University Medical School, to create a hand-held drug delivery device to dispense drugs called retinoids, that our scientists have shown can induce lung regeneration and reverse or protect lung tissue from damage due to inhaled toxic substances. Building on this research, we should be able to mount a credible defense against many types of battlefield or urban aerosol chemical and biological threats. We seek \$6 million to move this technology along to the prototype stage.

We also work with the Department of Defense to study Gulf War Syndrome, in an attempt to elucidate the possible chemical and physiological mechanisms that may have produced this illness. Such basic research should allow more rational treatment protocols for those individuals actually so affected and provide data that can be used in the future to counter similar threats. Our current efforts center on a study of the role of silicone (in the sand breathed in by the Desert Storm troops), in combination with pathogens known to be present in the inhaled atmosphere in the region at the time of the action. This study of combinations of inhaled substances that might produce disease is a common theme for us, and is the central mission of our new EPA-funded National Environmental Respiratory Center. This center will collaborate with the scientists working on these defense-related projects, to obtain the critical mass of expertise and synergism that produces new groundbreaking research findings.

Most of this important defense work has been made possible at reduced costs by the privatization process which was designed to retain and nurture this unique national resource.

I thank the Committee for allowing me to testify here today.

It is proposed that the Department of Defense establish a cooperative agreement with the Lovelace Respiratory Research Institute to meet research needs related to national defense. It is also proposed that the Department participate in the National Environmental Respiratory Center, an interagency effort to understand the respiratory health risks of combined exposures to mixtures of airborne contaminants, and support other research initiatives enhancing the Department's ability to fulfill its national defense mission.

THE LOVELACE RESPIRATORY RESEARCH INSTITUTE HAS UNIQUE AND PROVEN
CAPABILITIES FOR MEETING IMPORTANT DEFENSE-RELATED RESEARCH NEEDS

The Lovelace Respiratory Research Institute (LRRI)

Located in Albuquerque, New Mexico, LRRI is the nation's only independent, non-profit biomedical research organization wholly dedicated to the prevention, treatment, and cure of respiratory disease. LRRI conducts basic and applied research for government, industry, health advocacy organizations, and the public. The Institute is committed to reduction of the nation's large burden of respiratory disease by conducting research aimed at understanding causes and biological mechanisms, understanding and reducing risks from materials inhaled in the environment and workplace, and developing new strategies for prevention and treatment.

LRRI's staff of 230, including 40 scientists, 160 technicians and support staff, and 30 postdoctoral and graduate trainees and part-time staff, conduct approximately \$25 million annually of basic and applied, independent and collaborative research annually in 350,000 square feet of owned and leased laboratory facilities. LRRI research is funded by federal agencies (60 percent, largely NIH, DOE, EPA, and DOD), and private sources (40 percent, largely the pharmaceutical, chemical, and automotive industries). LRRI's research focuses in three principal areas: (1) causes, mechanisms, and detection of lung cancer and noncancer respiratory diseases; (2) treatment of respiratory disease and administration of drugs by inhalation; and (3) respiratory toxicology and health risks from inhaled air contaminants in the environment and workplace. The Institute is a leader in the respiratory health field, and is well-respected by academia, government, and industry alike for its objective leadership in placing health risks from airborne toxicants in proper perspective. LRRI has a strong record in inter-institutional research collaboration, is affiliated with the University of New Mexico, and has research liaisons with Sandia National Laboratories and numerous other organizations.

LRRI leases the privatized, government-owned Inhalation Toxicology Research Institute facility on Kirtland AFB, which it developed and operated for many years for the Department of Energy. This facility is the nation's best-equipped center for basic and applied research on the health effects of inhaled materials. LRRI is committed to maximizing the use of this taxpayer-owned facility to meet federal research needs involving respiratory disease and inhaled toxicants.

LRRI has Assisted the Department of Defense in Several Important Areas

Over the last 30 years, LRRI has produced a large portion of the key information necessary to place the health risks of nuclear weapons production and deployment in their proper context. Administered through the Department of Energy, LRRI research on the long-term health consequences of inhaling radionuclides has provided a foundation for risk assessment, and the Institute's research on treatments for accidental inhalation exposures underpin today's therapeutic options. The most recent studies have determined that cigarette smoking markedly increases the lung cancer risk from inhaled plutonium particles, and developed animal models useful for studying smoke-induced lung cancer and noncancer disease.

LRRI continues to conduct research to place the understanding of Gulf War illnesses on a stronger scientific basis. The potential toxicological nature of emissions from diesel-fueled tent heaters was characterized. An ongoing study is examining, for the first time, the possible long-term health consequences of inhaling very small doses of nerve agent. A proposal under consideration would evaluate the plausible, but unknown, contribution of inhaled sand dust to reported effects by facilitating immune disorders.

Of importance to both training and battlefield scenarios, LRRI is conducting research on the toxicity of depleted uranium fragments from armor-piercing munitions, and earlier provided toxicity data which underlies present estimates of the hazards of inhaling or ingesting trace amounts of depleted uranium.

LRRI's expertise in air sampling, controlled generation of toxicant atmospheres in the laboratory, and evaluating health effects is making an important contribution to the nation's chemical and biological defenses. LRRI has conducted research on the occupational hazards of working with nerve agent precursors. More recently, LRRI partnered with Sandia National Laboratories in research to develop new methods for remote detection of airborne biological agents. Together, these laboratories seek to refine these methods and extend the technology to additional chemical and biological agents.

LRRI is also working with a small technology-based company on a promising new plasma-based technology for rapid and complete destruction of chemical and biological agents. If successful, this technique would avoid the current problems of other technologies regarding toxic residues and environmental air contamination.

THE LOVELACE RESPIRATORY RESEARCH INSTITUTE PROPOSES TO USE ITS INDEPENDENT AND COLLABORATIVE RESOURCES TO ADDRESS CURRENT DEFENSE-RELATED RESEARCH NEEDS

Cooperative Agreement for Conducting Toxicological Research

It is becoming increasingly apparent to both LRRI and the Department of Defense that the research capabilities of LRRI are well-aligned with many current and likely future needs of the agency. In view of this alignment and the difficulties encountered in maintaining the Department's intramural toxicological research resources and joint interservice efforts, it is appropriate to consider an arrangement which makes LRRI's resources more readily and more broadly accessible by the Department. LRRI seeks to work with the agency to establish a cooperative agreement under which a broad spectrum of work matched to the Institute's resources can be readily conducted. LRRI has experience operating successfully under a cooperative agreement with the Department of Energy, and is in the process of establishing a cooperative agreement with the Environmental Protection Agency. Such an arrangement can increase the utility to the Department of the federally-owned resources leased and managed by LRRI.

The National Environmental Respiratory Center: Determining Health Risks from Combined Exposures to Air Contaminants

The Department's operations create numerous needs to understand and mitigate the respiratory health risks from inhalation exposures to mixtures of airborne contaminants, from sequential exposures to multiple contaminants, and from combinations of occupational exposures and non-occupational exposures, such as cigarette smoke. Similar concerns for environmental air pollution resulted in the establishment this year of a new National Environmental Respiratory Center (NERC). LRRI

proposes that the Department of Defense take advantage of this activity by supporting research that addresses the Department's specific information needs.

Respiratory diseases now kill one out of four Americans. Despite workplace standards, occupational exposures are still associated with numerous respiratory diseases, including allergic sensitization, rhinitis and bronchitis, pneumoconiosis, and cancer. NIOSH estimates that as much as 30 percent of chronic obstructive lung disease and asthma in adults may be caused by occupational exposures, and that 20 million workers are exposed to agents that can cause these diseases. The national health burden for occupational asthma is estimated to be as high as \$400 million yearly. The military and civilian workforce involved in meeting the Department's mission incur many of the respiratory health risks encountered by other workers, and the work of the Department also involves some unique risks.

Present environmental and workplace air quality regulations address individual pollutants, or pollutant classes, one at a time. The scientific and regulatory communities are increasingly aware that estimating the health consequences of air contaminants one at a time often misrepresents actual risks. Multiple agents can cause the same effects (e.g., inflammation, cancer). Some agents amplify the effects of others (e.g., acid particles and ozone, radon and cigarette smoking). It is likely that a mixture of air contaminants, each within its acceptable concentration, could present an unexpected aggregate health risk that is unacceptable. The combined risks of smoking and occupational exposures are largely unknown. Our poor understanding of the risks of toxicant mixtures makes it difficult to identify and prioritize the sources or practices whose management would most efficiently reduce the effects.

The Center is being initiated this year with core funding provided for in the EPA fiscal year 1998 appropriation. The mission of the Center is to facilitate and participate in a national initiative to understand respiratory health risks from combinations of inhaled airborne environmental and occupational pollutants. It is appropriate for the Department of Defense to participate in this activity. No single agency has the sole mandate for addressing the combined exposures problem, and the Department certainly has a stake in worker and public protection from combined exposures.

The Center will perform four principal functions. First, the Center will conduct research aimed at understanding the respiratory health risks of combined exposures to multiple airborne toxicants. Second, the Center will establish and maintain a specialized resource for information on present knowledge about the effects of combined exposures, and related research and research resources nationwide. Third, the Center will facilitate communication and planning in this specialized area by coordinating workshops and conferences on the health effects of contaminant mixtures and combined exposures. Government and non-government research sponsors and researchers from numerous organizations and disciplines will be brought together to identify critical research gaps and optimize the use of resources.

The Department of Defense can meet its information needs and its interagency responsibility in this field by participating in funding the Center, and by sponsoring research directed at the Department's specific information needs.

Chemical/Biological Defense Research Consortium

A key problem in the development of new technology to deal with chemical and biological threats is the basic multidisciplinary nature of the required research. Detection, mitigation, and countermeasures inevitably require new microelectronic devices, laser technology, software, analytical chemistry, aerosol science, microbiological expertise, respiratory physiology, inhaled drug delivery, and infectious disease management. No single institution is expert in all of these fields.

Recognizing the importance of the chemical/biological threat, not only on distant battlefields, but also for internal national security, three New Mexico research organizations have proposed to pool their laboratory resources, technical experience, and intellectual capabilities to develop new measures to deal with these threats. LRRI, Sandia National Laboratories, and the University of New Mexico Health Sciences Center have pooled their remarkable and complementary resources to partner successfully on other issues, and are confident that their synergy can help the Department meet its security mission in the chemical/biological defense arena. All have previous experience in addressing issues key to this field.

The functions of this collaborative research team would be to evaluate threats, develop new technologies, and improve existing technologies to identify and mitigate chemical/biological threats. Key themes would be remote detection of specific agents, personnel protection, threat elimination, and treatment of affected individuals. Although not yet formalized, a consortium of these research organizations would offer significant resources to the Department.

Novel Treatments for Debilitating, Intractable Respiratory Disease

The Department is faced with as large number of military employees and civilian workers who develop progressive, debilitating respiratory disease. These diseases place a large burden on the Department and society in terms of both financial and human costs. A portion of this disease burden may result from occupational exposures, probably more disease results from tobacco smoking, and a portion may be attributable to genetic predisposition. In addition, the Department is potentially faced with cases of debilitating lung and airway disease on the battlefield from chemical and biological agents.

Severe, destructive respiratory disease is an extremely difficult clinical challenge. Many respiratory diseases, such as emphysema, have not been amenable to cure, but are treated simply to relieve symptoms and maintain as much quality of life as possible. Others, such as cancer, are possible to cure in some instances, but are generally intractable and typically fatal. Indeed, the overall survival rates have not improved for either lung cancer or emphysema.

Together with its Senior Fellows (outstanding researchers in other institutions who collaborate closely with LRRI and are supported in part by the Institute), LRRI is conducting pace-setting research aimed at more effective treatments and cures of debilitating respiratory disease. An especially exciting example is the work of Drs. Donald and Gloria Massaro of the Georgetown University Medical School. Building on years of work in the field, these researchers have now shown that chronic lung disease (emphysema, in this case) can be reversed by treatment with analogues of vitamin A. Normal air sac structure has actually been restored in adult lungs with destructive emphysema, and work is underway with LRRI collaborators to determine the effectiveness of local application by inhaling the drug. Another example is the current work at LRRI to increase the effectiveness of anti-cancer treatment by delivering drugs directly to the lung and airway surfaces by inhalation.

Lovelace and Georgetown now seek \$6 million to extend these technologies for the use of the Department of Defense and other agencies faced with countering such new dangerous exposures. These funds would be used to better define the mechanism by which retinoids induce lung regeneration, to develop new systems to deliver drugs and protective agents by aerosol systems systems, and to create credible counter-measures to air-born toxic and biological threats.

Supporting innovative research aimed at treating, and potentially curing, debilitating respiratory disease is well within the scope of the Department's health concerns. LRRI proposes that the Department support its work on restoring destroyed lung tissue and treating respiratory disease by inhaled drugs.

Senator STEVENS. You are asking for \$6 million; is that it?

Dr. RUBIN. That is correct.

Senator STEVENS. Any questions?

Senator Domenici.

Senator DOMENICI. Mr. Chairman, I just wanted to state for the record and for the Doctor my congratulations and wholehearted support for the privatization effort. This has been a public facility for 40 years, for all intents and purposes, funded by the Federal Government. You might remember Randy Lovelace was one of the original doctors involved with space. As a consequence, this laboratory was created with reference toxicity of air. Over the years, it has been one of the leading ones.

And I am very proud of them for taking a leap toward privatization—meaning that they will get business from a lot of different sources, built around their expertise. Doctor, I compliment you and your people and thank you for your testimony.

Thank you, Mr. Chairman.

Dr. RUBIN. Thank you, Senator.

Senator STEVENS. Thank you very much. We appreciate it.

Dr. RUBIN. Thank you.

Senator STEVENS. Our next witness is Bobby Harnage, the President of the American Federation of Government Employees.

STATEMENT OF BOBBY L. HARNAGE, NATIONAL PRESIDENT, AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES, AFL-CIO

Mr. HARNAGE. Good afternoon, Senator.

Mr. Chairman and subcommittee members, my name is Bobby Harnage, and I am the National President of the American Federation of Government Employees, AFL-CIO, which represents some 600,000 Federal employees. I would like to begin my testimony by thanking the subcommittee for this opportunity to testify.

And on a personal note, Mr. Chairman, I want to thank you for the leadership you have shown in securing passage of the emergency supplemental appropriation bill, which provided much-needed funding to DOD. There was a lot of talk that DOD would perhaps have to furlough or even lay off civilian employees if that legislation had not been passed in time. However, because of your experience and expertise as a lawmaker and as an appropriator and because of your unmatched concern for national security and your determination to treat Federal employees fairly and equitably, I knew that furloughs and layoffs at DOD simply would not occur.

Finally, I thank you for your forthright opposition to the Freedom from Government Competition Act currently pending before the government affairs committee. We will work with you to ensure that the sponsors of this government-wide contracting out legislation do not complicate chances of passage of various appropriation bills by offering their measure as an amendment to such legislation.

I discuss in detail in my written testimony AFGE's request that the subcommittee retain the 10-employee rule, which prevents the conversion to contractor performance of an activity or a function of DOD that is performed by more than 10 civilian employees until a most efficient and cost-effective organization analysis is complete. And so I will say nothing more about this on this occasion except to bring our request to your personal attention.

Finally, permit me to discuss the use of in-house personnel ceilings by DOD officials to contract out work, often at a higher cost because of the absence of public/private competition. That is not just my opinion, that is what the military brass say, that is what the DOD Inspector General says, that is what the General Accounting Office says, and that is what senior DOD managers tell their subordinates to do in the three memos I attached to my written testimony.

Since that submission of my testimony, I have come across yet another personnel ceiling horror story. In a letter to the field from the Air Force Reserve's Assistant Director for Communication and Information, she writes, and I quote:

We recognize there are limited manpower resources in the field for supporting new systems as they come on line. With the current constrained budget environment, we also recognize that we are unable to obtain additional civil service personnel to fill these shortfalls. For these reasons, we have been pursuing the authority and funding to hire contractors to assist you with more critical network management and systems administration requirement. Since all of these systems are being installed without additional personnel manpower, a contract vehicle was our only option to support these labor-intensive requirements.

Recognizing this practice is bad for taxpayers, warfighters and Federal employees, your subcommittee has taken the lead on this issue by including a prohibition against this practice in recent de-

fense appropriation bills, and we urge you to include it in this year's funding measure.

Thank you for this opportunity to testify, and I will be happy to answer any questions you might have.

PREPARED STATEMENT

Senator STEVENS. Yes, sir. Thank you very much. I have gone through your whole statement, and we are going to be in touch with you about the A-76 questions also.

Mr. HARNAGE. That would be great.

Senator STEVENS. I appreciate that.

Are there any questions?

[No response.]

Senator STEVENS. Thank you very much.

Mr. HARNAGE. Thank you.

[The statement follows:]

PREPARED STATEMENT OF BOBBY L. HARNAGE

INTRODUCTION

Mr. Chairman and Subcommittee members, my name is Bobby Harnage. I am the President of the American Federation of Government Employees. AFGE represents more than 600,000 federal employees serving worldwide, including 300,000 employed by the Department of Defense (DOD).

I would like to begin my testimony by thanking the Subcommittee for this opportunity to testify on the fiscal year 1999 Defense Appropriations Bill. I also welcome this opportunity to work with the Subcommittee in addressing the needs and concerns of DOD employees. AFGE members are justifiably proud of their past service in defense of the United States. As both Americans and federal employees, AFGE members take seriously their role in keeping America's defense strong and ready. We also know that you, Mr. Chairman, and the other members of this Subcommittee share AFGE's belief that the United States must continue to remain ready to meet any threat to the security of our nation.

On a personal note, Mr. Chairman, I want to thank you for the leadership you showed in securing passage of the emergency supplemental appropriations bill which provided much-needed funding to DOD. There was a lot of talk that DOD would perhaps have had to furlough or even lay off civilian employees if that legislation had not been passed in time. However, because of your experience and expertise as a lawmaker and an appropriator, because of your unmatched concern for national security, and because of your determination to treat federal employees fairly and equitably, I knew that furloughs and layoffs at DOD simply would not occur. Finally, I thank you for your forthright opposition to "The Freedom From Government Competition Act" (S. 314), currently pending before the Senate Governmental Affairs Committee. We'll work with you to ensure that the sponsors of this government-wide contracting out legislation don't complicate chances of passage of various appropriations bills by offering their measure as an amendment to such legislation.

UPHOLDING THE COMPETITIVE FRAMEWORK OF OMB CIRCULAR A-76 AND THE TEN-EMPLOYEE RULE

Mr. Chairman, we know that the options of contracting out, outsourcing, and privatization are generating more attention than ever. Many contractors, many senior Pentagon officials, and even some Members of Congress who have been around long enough to know better are eager to give work away to private sector firms even if it can't be proven that contracting out saves money.

For AFGE and its members, however, the central issue which should drive the discussions surrounding the outsourcing debate is readiness—how we can get the most effectiveness, efficiency, and reliability for the taxpayer dollar invested. It would be wrong to assume that AFGE's only interest in these discussion is to preserve federal jobs. AFGE has a long-standing policy to follow outsourced work into the private sector once a decision to contract out is made. For example, two years ago, we signed a contract with a private sector firm, Hughes Aircraft, which allows

AFGE to continue its representation of the employees at the recently converted Indianapolis Naval Air Warfare Center.

So those defense contractors whose claims of savings are based not on innovation and ingenuity but instead on nothing more than paying their employees poorly and providing them with few if any benefits had better watch out. This union isn't going away.

The fact that AFGE will retain its vigor and vitality—even in this era in which privatization is all the rage—by organizing outsourced workers allows this union to be a calm and constructive player in the discussions surrounding defense reform and the realization of budgetary economies. AFGE is not anti-privatization. We are, however, unreservedly and non-negotiably pro-competition. And on this principle, we will not cave or compromise.

AFGE was extensively involved in the 1995–1996 reform of OMB Circular A–76. This effort resulted in a revised Supplement that, while permitting more flexibility to contract out, also enables federal employees greater involvement in the competitive process, and makes contracting out a “two-way-street” by permitting work to return back in-house when it is more cost-effective to do so.

When confronted with the anxious demands of private sector firms eager to secure expensive new contracts and their pro-privatization friends in the Pentagon, it's imperative to remember that the way to generate efficiencies and savings is not contracting out or privatizing. Rather, what's key is ensuring real and genuine competition between the public and private sectors before any work is contracted out.

We must also remember the basic difference between a private sector bid and a federal sector bid. A private-sector bidder offers a promise of performance and costs. On the other hand, a federal bidder's offer is based on a proven record of performance and costs (as determined by annual budgets). The differences between the real and the ephemeral, the proof and the promise, and the walk and the talk reinforces the need to ensure full and fair public-private competition.

Although less extensive than the public-private cost comparison process under OMB Circular A–76, the ten-employee rule is an important mechanism in reducing wasteful contracting out. This provision, which has been included in recent defense appropriations bills, (a) prevents the conversion to contractor performance of an activity or function of DOD that is performed by more than ten civilian employees until a most efficient and cost-effective organization analysis is completed and (b) requires that any resulting service contracting decision be submitted to the Senate Appropriations Committee.

It is precisely because the Senate Defense Appropriations Subcommittee takes an interest in ensuring cost-effective service contracting that the ten-employee rule should be retained. Although your panel might continue to receive service contracting reports from DOD through an informal arrangement with the Senate Armed Services Readiness Subcommittee, it would send the wrong signal to the Pentagon if the ten-employee rule were dropped entirely at exactly the same time that some DOD officials emphasize service contracting even at the expense of cost-effectiveness.

Clearly, the taxpayers would not be well-served if it appeared, however inaccurately, that the Senate Defense Appropriations Subcommittee, the panel that makes the most important of all spending decisions, was getting out of the service contracting oversight business.

Moreover, it would not be well-advised to raise the threshold for conducting cost comparisons from instances involving ten employees to those involving, say, twenty employees. We are already concerned about contracts being arbitrarily split up in order to avoid the coverage of the ten-employee rule. That problem would be exacerbated if the ten-employee rule devolved into, say, a twenty-employee rule. I think most lawmakers agree that it would be irresponsible to contract out a service without assurance that the taxpayers would benefit from such an arrangement, especially when the cost comparison process required need not be as comprehensive as a complete OMB Circular A–76 study.

Further, it would be a mistake to assume that your panel's cost comparison safeguard is the same as the one used by the Senate Readiness Subcommittee, as some have suggested. As you know, your cost comparison requirement applies to all instances of contracting out when it involves more than ten employees. The Readiness Subcommittee's safeguard would only take effect when DOD makes a “decision to study” the conversion of a function involving twenty or more employees.

As you know, A–76 allows managers to convert commercial activities involving eleven or more employees to contract without a cost comparison process. In addition, agencies, as a result of the revised A–76 supplement, can obtain waivers from the cost comparison requirement in other situations. As your staff has suggested, securing a waiver from A–76's cost comparison requirement does not constitute a decision

by DOD managers to study the conversion of commercial activities to contract. Therefore, in what is likely to be a significant number of instances, the Senate Readiness Subcommittee's reporting and cost comparison safeguard simply would not work.

Of course, in those very same instances, your panel's superior safeguard would ensure that DOD conducts a cost comparison—one which would be less extensive than an A-76 study but still sufficient to deter against wasteful outsourcing—and then reports any resulting service contracting decision to the Congress. But that would only happen if you and your colleagues decide to retain the ten employee rule.

AFGE'S recommendations

AFGE urges the Subcommittee to resist any attempts to exempt the Department of Defense from the competitive requirements of the recently-reformed OMB Circular A-76 and its Supplement.

AFGE urges the Subcommittee to reaffirm its commitment to the ten-employee rule.

AFGE also urges the Subcommittee to include language in this year's bill which would require DOD to conduct a post-contract award audit to ensure the government is truly receiving the savings or efficiencies promised by the contractor in its bid. In the event promised savings or performance are not realized, or in cases of contract non-performance or default, DOD would be required to report what action—such as recompetition or conversion to in-house performance—it is taking to correct this situation. The information required by the audit is already included in A-76's new Supplement, so this report could be provided with a minimum of cost or administrative burden to the agency compiling this report. However, we also need to compile this important information for all contracting out resulting from direct conversions and A-76 waivers and then allow DOD's contract administrators to bring this work back in-house in the event of poor performance and/or excessive costs. Mr. Chairman, we are eager to assist the Committee in drafting the necessary language.

URGING THOROUGH CONGRESSIONAL REVIEW OF DOD'S WASTEFUL POLICY OF MANAGING BY ARBITRARY FTE CEILINGS

AFGE members are extremely concerned about the effect of Full-Time Equivalent (FTE) personnel ceilings on our federal defense workforce's competitive capability and on our nation's readiness.

In early 1994, the Office of Management and Budget (OMB) reported that several agencies—including the Departments of Agriculture, Health and Human Services, Housing and Urban Development, State, Education and Treasury, as well as the Environmental Protection Agency—said that they each could have saved several million dollars by performing functions directly rather than having them performed by contractors but did not do so because either their requests to OMB to take on the necessary full-time equivalents (FTE's) were refused or the agencies were so sure such requests would be refused that they were not even submitted.

It then became apparent that DOD, the department the American people rely on to safeguard their future, is also experiencing in-house staff shortages. On March 16, 1995, the personnel directors of the four branches of the armed forces told the Senate Armed Services Personnel Subcommittee that civilian personnel ceilings, not workload, cost, or readiness concerns are forcing them to send work to contractors that could have been performed more cheaply in-house.

Also in March 1995, GAO reported "that the personnel ceilings set by OMB frequently have the effect of encouraging agencies to contract out regardless of the results of cost, policy, or high-risk studies." And the DOD Inspector General noted in a 1995 report, "the goal of downsizing the federal workforce is widely perceived as placing DOD in a position of having to contract for services regardless of what is more desirable and cost effective."

Moreover, I have in my possession three internal documents which suggest that DOD managers are instructing subordinates to manage by personnel ceilings and then contract out the work. The first document instructs managers to impose personnel ceilings and then contract out the work. The second document imposes a "not to be exceeded" ceiling and insists that work performed by employees under GS-12 be contracted out. The third document instructs Army officials to absorb civilian personnel reductions and offset the manpower shortages by aggressively contracting out.

We shouldn't be surprised that much contracting out occurring because of personnel ceilings is wasteful. After all, there's no public-private competition. Federal employees aren't given opportunities to compete in such situations—simply because there aren't enough of them to do the work. Clearly, DOD should be required to manage by budgets. If it has work to do and money is authorized and appropriated

to do that work, then DOD should be able to use federal employees if in-house performance is to the benefit of warfighters and taxpayers.

We all know that DOD's civilian workforce is going to get smaller. We all know that there is going to be more contracting out. But DOD should not be imposing arbitrary personnel ceilings and foreclosing the option of in-house performance of important work, especially if contractors are less efficient.

Even if not always successful, we appreciate the subcommittee's efforts to prevent DOD from managing by personnel ceilings by the inclusion of prohibitions in recent defense appropriations bills.

AFGE'S recommendation

AFGE strongly urges the Subcommittee to require DOD to manage by budgets, rather than personnel ceilings.

Recent articles in the media have brought to the attention of readers the "shell game" which is allowing the Administration to claim that the federal government is getting smaller when in fact federal employees are only being replaced by often more expensive contractor employees. As The Washington Times reported recently, "One of the biggest trends in federal workforce policy over the past ten or twenty years has been to contract out more of the government's work to the private sector. Many thousands of government jobs are now being performed by private contractors * * * (T)he workers shifted to outside the government remain largely unseen and uncounted."

If the federal government spends more than \$110 billion annually on highly labor-intensive service contracts and the annual pay and retirement benefits for the federal government's own workforce of 1.8 million executive branch employees is \$108 billion, the contractor workforce must be quite large indeed. As The Washington Times pointed out, the Administration has no idea how big the contractor workforce really is, preferring to remain willfully ignorant. I find this preference to be both incredible and confounding! Is there a single large corporation that wouldn't even have the foggiest idea about the size of its contractor workforce? Of course not!

AFGE'S recommendation

If you, too, Mr. Chairman, are concerned about the Administration's "shell game" of hiding hundreds of thousands of government employees on contractor payrolls and then claiming to have reduced the size of government, I urge you to consider adding H.R. 887, legislation introduced by Representative Eleanor Holmes Norton (D-DC), to this year's defense appropriations bill. Her bill would simply require OMB to develop a government-wide system for determining and reporting the number of non-federal employees engaged in service contracts. That's the first step which must be taken if we're ever going to end the "shell game" in which the Administration wins the public relations war while taxpayers lose their shirts.

CONCLUSION

Mr. Chairman, this concludes my testimony. I appreciate the opportunity to appear before the Subcommittee today. I would gladly answer any questions. AFGE looks forward to working with the Subcommittee as the defense appropriations bill is marked up.

STATEMENT OF MICHAEL F. OUELLETTE, SERGEANT MAJOR, USA (RETIRED), DIRECTOR OF LEGISLATIVE AFFAIRS, NON COMMISSIONED OFFICERS ASSOCIATION OF THE UNITED STATES OF AMERICA

Senator STEVENS. Now we have Sergeant Major Michael Ouellette, Non Commissioned Officers Association of the USA.

Yes, sir.

Sergeant OUELLETTE. Good afternoon, Mr. Chairman. Mr. Chairman, on behalf of the 160,000 members of the Non Commissioned Officers Association [NCOA], we wish to thank you very much for the opportunity to appear before you.

I am not going to read to you. We have submitted the statement. But I would like to expound a little bit on the comments you made earlier, when you said that during recent visits to the field there were considerable concern with the morale of the troops, military people and their families.

And, Mr. Chairman, that is the message that the Non Commissioned Officers Association receives loud and clear. That the issue in fact in the minds of the senior non commissioned officer of all the services is in fact the ability to retain good people over the long haul. With the constant limitations on pay raises, the reduction in food money is causing grave concern within the military. That is compounded by what is perceived in the field to be a diminishment of the retirement benefits associated with that service.

They are concerned with the costs of health care in the future and what the situation is going to be. They are also concerned with the threat of base closures that further minimize availability of those facilities to obtain the benefits. And with that kind of information from our membership, this morning our new President, Roger W. Putnam, announced that the Non Commissioned Officers Association considers the reform of the military retirement systems, the two current systems, the 1980 system and the 1986 system, to be the first legislative priority of the Association.

That is, the troops out there, Mr. Chairman, see a need in the future to virtually buy all of the benefits associated with service. And, in turn, the people serving under the retirement systems, the playing field is not levelled. And there are many serving there with significantly reduced income levels associated with retirement.

PREPARED STATEMENT

Therefore, the Association will be working aggressively in the future to try and repeal the two systems, to return to the old system of final base pay times 50 percent at 20 years, to try and encourage continued retention of people. NCOA, although it is concerned mainly with people programs, has to look at the retention and the maintenance of the institutions of the armed forces. And, Mr. Chairman, right now the view is so dim in the minds of those serving that we feel we must take a bold step to move forward, to try and improve the situation so that in fact, at the end of the service, military people, retirees and their families, may in fact have enough money to be able to buy the complete range of their military earned benefits associated with retirement.

Thank you, Mr. Chairman.

[The statement follows:]

PREPARED STATEMENT OF MICHAEL F. OUELLETTE

Mr. Chairman, the Non Commissioned Officers Association of the USA (NCOA) appreciates the opportunity to present testimony before this subcommittee on the fiscal year 1999 Department of Defense Budget. The Association's comments and recommendations represent the views and concerns of its noncommissioned and petty officer membership and those of the Apprentice Division (E1-E3) and will address a wide range of compensation, personnel, medical care and quality-of-life issues of significant importance. Hopefully, this subcommittee will consider recommendations from an enlisted viewpoint to be of value and assistance during deliberations.

NCOA is a federally chartered organization representing 160,000 active-duty, guard and reserve, military retirees, veterans and family members of noncommissioned and petty officers serving in every component of the Armed Forces of the United States; Army, Marine Corps, Navy, Air Force and Coast Guard.

PRELUDE

Mr. Chairman, NCOA wishes to extend its appreciation to the members of this subcommittee for their efforts on behalf of enlisted men and women of the armed

forces. Military people rely on the favorable actions of this subcommittee to provide funding for annual quality-of-life improvements and this subcommittee has not failed to meet its obligations to those who serve. There is no question that continued positive funding actions by this subcommittee are paramount to the armed forces' ability to recruit and retain quality enlisted people to meet its wide-ranging mission responsibilities. At the very top of enlisted members' list of priorities is the ability to meet their financial responsibilities to financially support themselves and/or their families.

NCOA understands the difficult deficit reduction climate in which the Congress and the armed forces must operate. The efforts of this subcommittee have been and will continue to be vitally important to the well being of the enlisted forces.

The major point the Association wishes to make to this subcommittee is that the decision to maintain credible military services automatically carries with it a responsibility to take care of the men and women who comprise that force regardless. This subcommittee has done that in the past. Yet much more must be done to avert a manpower crisis.

NCOA wishes to offer a number of pay, personnel, medical care and quality-of-life improvement recommendations intended to address a number of areas which can significantly improve the overall well-being of military members, retirees, their families and survivors.

ANNUAL MILITARY PAY RAISE

NCOA appreciates the support of this subcommittee to pass legislation in 1997 that awarded military members a 2.8 percent cost-of-living pay raise effective January 1, 1998. However, it must be noted the increase was one-half percent below inflation as measured by the Employment Cost Index (ECI) which was set at 3.3 percent. NCOA and most enlisted members of the armed forces are well aware that military pay raises have been capped below private sector pay growth or full inflation in 12 or the last 16 years. The result is that military pay, even with the January 1998 increase, lags a cumulative 13.5 percent behind that enjoyed by the average American worker performing similar work. With the knowledge of these facts and after sustaining months of family separation and the hardships associated with the multitude of missions of the armed forces, complicated by increasingly longer workdays due to force reductions and operation tempo, enlisted men and women feel they are being "short-changed" by those in control of their destinies.

In 1997, the House of Representatives recognized the seriousness of this pay situation by including language in their version of the fiscal year 1998 Defense Authorization Bill that directed future military pay raises to be at the full ECI level. Unfortunately, this provision was dropped in conference and the status quo prevailed. Although NCOA supports full ECI pay raises and total elimination of the differential with civilian sector pay, the Association does not expect the Congress to approve a 13.5 percent pay raise in 1999 to correct the situation. NCOA does recommend that Congress adopt a long-term military pay raise plan that would resolve the problem over time. Future military pay raises paid annually at full ECI levels plus an additional percentage amount would put military members on equal financial ground with their civilian counterparts in future years, while at the same time, gradually eliminating the current estimated pay differential. NCOA recommends a long term plan that would increase pay by the ECI plus 2 percent in 1999, ECI plus 3 percent in 2000, ECI plus 4 percent in 2001 and ECI plus 5 percent in 2002.

THE UNIFORMED SERVICES THRIFT SAVINGS PLAN (USTSP)

This year NCOA expects a recommendation to come before Congress that would establish a savings plan for members of the uniformed services. This proposal would give those eligible to participate an opportunity to contribute up to 5 percent of their basic pay into a program referred to as the Uniformed Services Thrift Savings Plan with the deduction made from their pay by the servicing Defense Finance and Accounting Services (DFAS). Under normal conditions, such a proposal would appear to have considerable merit; however, NCOA is very concerned that such a proposal sends the wrong message or paints an inaccurate picture of the current financial capabilities of enlisted members of the military services. NCOA believes it to be highly unusual that at a time when annual pay raises are being capped below inflation; When a pay gap of 13.5 percent is estimated to exist between military and civilian sector pay; When commissaries are redeeming food stamps and WIC vouchers in the millions of dollars, the Defense Department would offer a proposal that strongly suggests that military people, particularly enlisted people, can afford to save money.

Since the original proposal made only those who entered military service on or after August 1, 1986, eligible to participate, NCOA believes the main intent was to provide a program to supplement the retirement system for military members who began service on August 1, 1986. The financial impact of that system is itemized on Enclosures 1 and 2. There can be no doubt the 1986 retirement system will impose a wide range of financial penalties on those serving under it. In the interests of military services' ability to recruit and retain military people until retirement, NCOA recommends the retirement system be improved from its current version rather than initiate a new program when similar civilian savings and tax deferred programs already exist for those who can afford to take advantage of them.

HOUSING AND FACILITIES

Last year in testimony to this subcommittee, NCOA supported a Defense Department proposal to change the manner in which Basic Allowance for Quarters (BAQ) and Variable Housing Allowance (VHA) were paid. The one allowance system went into effect on January 1, 1998, and hopefully will provide military families with a sufficient amount of money to cover the cost of adequate housing wherever assigned.

TUITION ASSISTANCE

Last year Congress instructed DOD to standardize the Tuition Assistance Program for all services. The military services have responded to guidance and have changed its program to mirror each other. However, NCOA has received information that the services are finding it difficult to fully fund the program from within their existing budgets. NCOA is very concerned that an inability to fully fund this important recruiting incentive and professional development program will result in a reduction of the benefit across all of the services. The military services now provide participants with a maximum annual tuition assistance benefit of \$3,500. It is extremely important to provide adequate funding to maintain that level of benefit especially when higher education opportunity while in service is used as a recruiting incentive. This is clearly a funding requirement that must be fully supported by this subcommittee. NCOA recommends this subcommittee include appropriate tuition assistance funding levels in order to provide equity throughout the services and level the education opportunity "playing field" for all eligible members of the military services.

MILITARY RETIREE ISSUES

NCOA has a number of retired force issues and concerns it wants to bring to the attention of this subcommittee. Both of the issues are direct funding requirements, however, the issue of Concurrent Receipt will more than likely be debated in another committee. Both issues are vitally important to military retirees.

—*Retired Pay Cost-Of-Living Adjustment (COLA).*—NCOA appreciates the efforts of this subcommittee to provide a 2.1 percent COLA to military retirees effective January 1, 1998. Nonetheless, NCOA remains extremely concerned that last year's congressional activity included suggestions by some that the Consumer Price Index (CPI) overstates inflation. The Association believes this debate will continue into 1998. NCOA urges this subcommittee to continue to resist retirement or COLA proposals that would reduce the value or purchasing power of military retired pay.

—*Concurrent Receipt.*—Despite the fact that cost is a major factor in changing the current offset between VA disability compensation and military retired pay, NCOA remains committed to correcting this equity. Retired pay and VA compensation are made for two distinctively different reasons. Yet, should a military retiree be adjudicated to be disabled by the VA, there continues to be a dollar for dollar offset in the payment of benefits. NCOA urges this subcommittee to work toward reducing or eliminating the current VA disability offset to military retired pay at least for the 100 percent or most severely disabled.

MILITARY MEDICAL CARE

Mr. Chairman, availability and access to military health care or alternative options that are needed to protect the medical care needs of military beneficiaries. Surveys of Coast Guard people and their families consistently show that medical care along with adequate pay, inflation protected retired pay and commissary availability are the top concerns of the military community. In fact, with base and hospital closures and reductions in medical personnel, the increasing lack of no-cost health care is a major concern to active and retired personnel alike. Enlisted people,

both active and retired, suffer the greatest impact because of their lower pay levels which cause them to place a greater value on the benefit.

Currently more than 58 hospitals have been closed as part of the Base Realignment and Closure Commission (BRAC) or other actions. Services have been cut back at many of the hospitals remaining open and many of them have been and continue to be downgraded to clinic size. Hundreds of thousands of retirees and their family members who received care in MTF's are now finding no care available. Retirees are being denied prescription drugs by MTF pharmacies in increasing numbers. They are told the prescribed drugs cost too much and are not stocked or are restricted for issue to active duty beneficiaries only.

The TRICARE Program has been in development or implementation for nearly a decade, yet the TRICARE-Prime still does not cover certain parts of the United States. For example, in California where the military managed care system has been in place the longest, there are still areas without TRICARE Prime networks. However, despite the lack of established networks, the TRICARE-Standard/CHAMPUS option should be available. Unfortunately, the CHAMPUS Maximum Allowable Charge (CMAC) is so low many physicians will not accept it. The current system is broken, and must be fixed.

NCOA fully supports keeping a strong, effective direct care system for the delivery of health care and in the best interests of medical readiness. The Association also supports making full use of the military treatment facilities and TRICARE networks as primary providers. However those retirees (Medicare-eligible) who are either "locked-out" of TRICARE-Prime or not guaranteed access to these primary sources of care should be offered a number of alternatives or options. In this regard, NCOA supports:

- Medicare Subvention.*—NCOA is pleased that Congress passed legislation last year providing authority to provide a Medicare Subvention demonstration project at six sites across the United States. Although this action was a major step forward, the Association is greatly concerned by loss of military medical care access for the many Medicare eligible military retirees residing outside the confines of the demonstration test sites. Therefore, NCOA strongly supports the immediate implementation of the Medicare Subvention concept across the United States in order to provide immediate relief and to minimize the great injustice being done to all Medicare eligible military retirees who have lost earned health care benefits.
- FEHBP as an Option.*—NCOA supports offering the Federal Employees Health Benefit Program (FEHBP) as an option to Medicare eligible military retirees, their families and survivors. Additionally, the Association also supports offering this option to TRICARE-Standard eligible beneficiaries residing outside of TRICARE-Prime catchment areas. Although not an issue that can be acted upon by this subcommittee, in the best interests of Coast Guard retirees, NCOA urges the subcommittee members to support any legislative effort to direct DOD to restore TRICARE-Standard or CHAMPUS as originally intended by Congress or authorize FEHBP as an option for all military retirees and their families.
- Medicare Part B Enrollment Penalty Waiver.*—NCOA urges the subcommittee members to support the enactment of any legislation to waive the 10 percent per year Part B Medicare late enrollment penalty for military retirees whose access to the military health care system has been curtailed because of base closures or implementation of TRICARE-Prime.
- Mail-Order Pharmacy Program Expansion.*—Another legislative item that would be most beneficial to all military retirees would be the expansion of this program beyond just those affected by BRAC actions. NCOA urges the subcommittee members to support legislation to expand the DOD mail-order pharmacy program to include all military retiree, regardless of age, status or location. The availability of this program would be a great benefit to Medicare eligible military retirees even if Medicare Subvention or FEHBP legislation were not passed.

SURVIVOR BENEFIT PLAN

Because of the efforts of Congress last year, military retirees who enroll in the Survivor Benefit Plan (SBP) can now withdraw from the program during the first year following the two-year anniversary date of their retirement. NCOA continues to recommend a legislative change to SBP which would permit 30-year paid-up coverage.

COMMISSARIES

NCOA constantly receives inquiries from enlisted people, both active-duty and retired, concerning the continued availability of this very important non-pay benefit. Of course, the loss of this benefit would impact significantly on all eligible patrons, however, the impact would be the greatest on enlisted patrons simply because of their reduced pay levels. NCOA has supported initiatives to improve the management of the commissary system and would support the privatization of commissaries as long as the value of the benefit is not eroded and services are not reduced. The Association, however, is not confident that a decision to privatize the benefit would result in a reduction in the value of the benefit. Therefore, NCOA appreciates the past efforts of this subcommittee to protect the availability of the commissaries and urges the members to maintain required appropriated fund levels to protect the non-pay benefit as being in the best interests of the enlisted communities.

GUARD AND RESERVE ISSUES

NCOA is committed to supporting legislation intended to improve the lives of members of the National Guard and Reserve and their families. In doing so, NCOA supports any legislative effort and urges this subcommittee to provide funding that would:

- Authorize unlimited commissary access for guard and reserve members.
- Make the Reserve Component Transition Assistance Program (RCTAP) disability retirement provision a permanent part of law.
- Authorize full-payment of benefits due under the Ready Reserve Mobilization Income Insurance Protection (RRMIIP).
- Provide long-term, low-interest loans or Federal grants to self-employed Reservists who suffered significant financial penalties as a result of their participation in Operation Desert Shield/Storm and other contingencies for which selected reserve members are involuntarily activated.
- Reject any effort to eliminate the Military Leave Program for Federal civilian employees participating in the reserves.

CONCLUSION

Mr. Chairman, perhaps the single most valuable effort this subcommittee could make to the well-being of the military enlisted community and the armed forces in general is to send a signal that Congress will provide some stability in pay and benefits. Last year, the House of Representatives attempted to make full ECI pay raises mandatory. Although that particular effort failed, there were numerous improvements. For instance, Congress passed legislation that reduced out-of-pocket medical costs for military families assigned to isolated areas. They made improvements in Hazardous Duty Pay and Family Separation Allowance (FSA) and even gave military members a new Hardship Deployment Pay. A Retiree Dental Plan, although non-subsidized, became a reality. Still there remains uncertainty in the minds of military people. Even with the legislative gains achieved by military people, they still seem only to remember the attempted threats to their benefits.

The insecurity caused by this constant churning of threats to benefits creates an environment of stress that takes a real toll on national security. Military people simply must be given opportunities to respect and participate in change instead of living in constant dread and fear of loss.

NCOA appreciates the opportunity to present a number of enlisted views in testimony before this subcommittee. The Association looks forward to addressing further details regarding the issues discussed and any other issues with you and the subcommittee staff.

Thank You.

Senator STEVENS. Thank you.

I think you are right. I think that you should note when we were over in the Kuwait area, we ran into just a hailstorm of comments about the retirement system, based upon an Internet piece that they showed to us, which was spurious. There is just a lot of information out there that goes to the Internet. And these guys and gals out there have got time to look at that and to read them. They are about the only ones I know that have time to read them. But, at any rate, they do read them. And they were really hot about the question of retirement.

So, we are going to have to do something about correcting that misconception. But the trouble is we are dealing with a myth. Because the information that is out there about what happened to the retirement is wrong. We have not changed the retirement this last year. That is what that article said.

Senator Inouye and I are going to take a look at that and see what we can do. We appreciate your statement.

Do you have any comments, Senator?

Senator INOUE. I think it should be pointed out that tomorrow morning we are having a special meeting with the Secretary of Defense. And this will be on the top of the agenda.

Senator STEVENS. One of the agenda items we have is how to deal with this false information about what happened to the retirement benefits. And we also have to do as you say, we have to do something about the inconsistencies of the systems that are out there. At least we ought to be dealing with the facts and not with false statements. Thank you.

Sergeant OUELLETTE. Mr. Chairman, thank you very much. And when it all comes down to the decisions, it is the soldier and the marine, with their faces in the mud, and the sailors at sea, and those people that really go through it that provide the level of security needed by this country. And we just simply have to take care of those people.

Senator STEVENS. We have to keep the promises we make.

Sergeant OUELLETTE. That is right.

Senator STEVENS. There is no question about that.

Thank you very much.

Sergeant OUELLETTE. Mr. Chairman, thank you very much.

Mr. Inouye, nice to see you.

STATEMENT OF RONALD VAN NEST, CERTIFIED REGISTERED NURSE ANESTHETIST, AMERICAN ASSOCIATION OF NURSE ANESTHETISTS

Senator STEVENS. Our next witness is Ronald Van Nest, the American Association of Nurse Anesthetists.

Mr. VAN NEST. Mr. Chairman, thank you for the opportunity to testify before this committee today. My name is Ronald Van Nest, and I am a Certified Registered Nurse Anesthetist, a CRNA. For the last 3 of my 30 years in the Navy, I was a member of the American Association of Nurse Anesthetists Federal Services Committee, while holding the position of Nurse Anesthesia Consultant to the Navy's Surgeon General. I am a recently retired Captain in the Navy Nurse Corps.

I am testifying today on behalf of the American Association of Nurse Anesthetists, the AANA, which represents more than 27,000 CRNA's, including over 600 that serve in our armed forces. My testimony today will make three points and one request. The points are that nurse anesthetists are inexpensive to educate, inexpensive to maintain, and we provide safe anesthesia service.

The request is that you look into the current anesthesia staffing models in the military, which we consider wasteful. First, I would like to thank this committee for its continued support of the efforts of the Department of Defense to recruit and retain qualified nurse anesthetists. AANA thanks this committee for your support of spe-

cial pay programs for CRNA's, and strongly recommends their continuation as an important recruitment and retention tool.

Nurse anesthetists, while providing virtually the same service as physician anesthesiologists, are far less costly for the services to educate. Data indicates that as many as 10 highly qualified CRNA's may be educated for the cost of training an anesthesiologist. The services have also saved resources by spending far less in bonus money to retain CRNA's. The nurse anesthetist and a physician start anesthesia training at the same time. In 8 years the CRNA will have received \$69,000 in special pay, while the anesthesiologist will have received \$253,000.

It is true, however, that cost-effectiveness means nothing if the quality is not there. Let me stress that numerous studies have shown that there is no significant difference in the outcomes between the two providers. The Department of Defense could provide even more cost-effective care if it utilized its providers more appropriately. There is no reason that CRNA's should be supervised or co-assigned with anesthesiologists in a wasteful ratio of 1 to 1 or 2 to 1. These ratios amount to nothing less than very expensive featherbedding.

I would like to take this opportunity to alert you to another related issue that may be coming before your committee. As you may know, the Health Care Financing Administration [HCFA] recently proposed a rule that would defer to State law on the issue of physician supervision of nurse anesthetists. AANA strongly supports this rule. However, legislation has been introduced by Senator Faircloth to prohibit HCFA from implementing this rule.

We have reason to believe that there may be an attempt to attach this legislation to an appropriations bill. And it may come before the members of this committee for consideration.

AANA strongly recommends that you resist any attempts to attach this legislation to any appropriations bill, and that the States be allowed their right to regulate our practice.

PREPARED STATEMENT

AANA thanks this committee again for its support of military nurse anesthetists, and I will be happy to answer any questions you may have.

[The statement follows:]

PREPARED STATEMENT OF RONALD VAN NEST

The American Association of Nurse Anesthetists (AANA) is the professional association that represents over 27,000 certified registered nurse anesthetists (CRNA's) in the United States, including over 600 CRNA's in the military services. The AANA appreciates the opportunity to provide testimony regarding CRNA's in the military. We would also like to thank this committee for the help it has given us in assisting the Department of Defense (DOD) and each of the Services to recruit and retain CRNA's.

CURRENT STATUS OF CRNA FORCES IN THE DOD

Nurse anesthetists have been the principal anesthesia providers in combat areas in every war the U.S. has been engaged since World War I. Military nurse anesthetists have been honored and decorated by the U.S. and foreign governments for outstanding achievements, resulting from their dedication and commitment to duty, and competence in managing seriously wounded casualties. In World War II, there were 17 nurse anesthetists to every one anesthesiologist. In Vietnam, the ratio of

CRNA's to physician anesthetists was approximately 3:1. Two nurse anesthetists were killed in Vietnam and their names have been engraved on the Vietnam Memorial Wall. During the Panama strike, only CRNA's were sent with the fighting forces. Nurse anesthetists served with honor during Desert Shield and Desert Storm. Military CRNA's continue to provide critical anesthesia support to humanitarian missions around the globe in such places as Somalia, Haiti and Bosnia.

In all of the Services, maintaining adequate numbers of active duty CRNA's is of utmost concern. For several years, the number of CRNA's serving in active duty has consistently fallen short of the number authorized by DOD as needed providers. Current statistics on the number of active-duty CRNA's for fiscal year 1998 are detailed below:

NUMBER OF ACTIVE DUTY CRNA'S—FISCAL YEAR 1998

	Authorization	Inventory	Shortage
Army	276	232	— 44
Navy	134	133	— 1
Air Force	233	230	— 3
DOD Total	643	595	— 48

HOW CRNA'S SAVE DOD MONEY

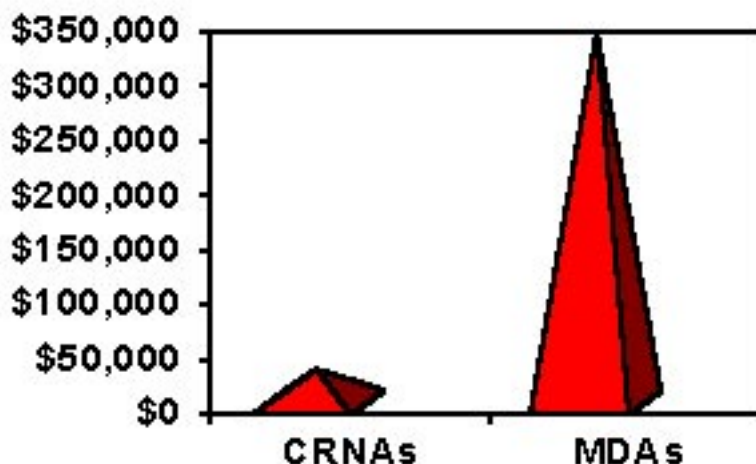
The practice of anesthesia is a recognized specialty within both the nursing and medical professions. Both CRNA's and anesthesiologists (MDA's) administer anesthesia for all types of surgical procedures, from the simplest to the most complex, either as single providers or in a "team care setting." Patient outcomes data has consistently shown that the anesthesia provided by solo CRNA's is of the same high quality as that provided by CRNA's who work with anesthesiologists, or that provided by solo anesthesiologists. CRNA's and MDA's are both educated to use the same anesthesia processes in the provision of anesthesia and related services.

While both types of health care professionals can provide the same or similar services, CRNA's cost the military much less to educate and to retain. In the first place, it costs the military significantly less to educate a CRNA as an anesthesia provider compared to the cost of educating an anesthesiologist. Second, a physician draws thousands of dollars in additional bonuses that illustrate they are significantly more expensive to retain.

Training costs are less

The most substantial educational difference between CRNA's and anesthesiologists is that prior to anesthesia education, MDA's receive medical education while CRNA's receive nursing education. However, the anesthesia part of the education is very similar for both providers. CRNA's and anesthesiologists are both educated to use the same anesthesia processes in the provision of anesthesia and related services. However, the cost to educate nurse anesthetists is significantly lower than the educational costs for physician anesthesiologists. Becoming a CRNA takes an average of 30 months additional education beyond the nurse's baccalaureate education, while becoming an anesthesiologist takes a minimum of 8 years beyond the baccalaureate degree. But if you compare just the cost of the anesthesia portion of their educational programs, CRNA education is far more cost-effective than physician education. Data from the 1992 AANA Council on Accreditation survey of nurse anesthesia programs indicates that the average annual program cost per student nurse anesthetists is \$11,741. The total cost for 30 months of CRNA education would therefore be approximately \$29,352 (\$11,741 per year \times 2.5 years). According to a letter received by AANA from HCFA in 1990, the average annual residency program cost per medical resident was \$84,837. The total cost for a four-year anesthesiologist residency would therefore be approximately \$339,400 (\$84,837 per year \times 4 years). AANA estimates that at least 10 CRNA's can be educated for the cost of educating one anesthesiologist. With the shorter training period, the 10 CRNA's will each be in practice for several years before the one anesthesiologist completes his/her residency.

Cost to Educate a Single Anesthesia Provider



Non-MD bonuses are less than physician bonuses

In addition to the decreased cost of training a nurse anesthetist, the bonuses received by CRNA's in the military are significantly lower than those received by military physicians.

The Incentive Special Pay for Nurses

In the early 1980's, once military CRNA's reached the grade of major with 12-14 years service, they could expect their salary and fringe benefits to match that of the average employed CRNA in the civilian workforce. By the 1990's, due to significant increases in civilian CRNA, military pay and fringe benefits were no longer comparable to the average employed civilian CRNA. According to a March, 1994 study requested by the Health Policy Directorate of Health Affairs and conducted by DOD, a large pay gap existed between annual civilian and military pay in 1992. This study concluded that "this earnings gap is a major reason why the military has difficulty retaining CRNA's." In order to address this pay gap, in the fiscal year 1995 Defense Authorization bill Congress authorized the implementation of an increase in the annual Incentive Special Pay for nurse anesthetists from \$6,000 to \$15,000 for those CRNA's who are no longer under service obligation to pay back their anesthesia education. Those CRNA's who remain obligated will receive the \$6,000 ISP. In addition, DOD has standardized the payback obligation across all the Services, which allowed for fair implementation of this increase.

AANA thanks this Committee for its assistance in securing this increase in the annual ISP. AANA strongly recommends the continuation of the annual ISP for CRNA's, which recognizes the special skills and advanced education that CRNA's bring to the DOD health care system.

Board Certification Pay for Nurses

Included in the fiscal year 1996 Defense Authorization bill was language authorizing the implementation of a board certification pay for certain non-MD health care professionals, including advanced practice nurses. AANA is highly supportive of board certification pay for all advanced practice nurses. It is clear that the concept of board certification pay comes from the physician model, which was implemented as an incentive for physicians to attain the highest level of competency and certification. The establishment of this type of pay for nurses recognizes that there are levels of excellence in the profession of nursing that should be recognized, just as in the medical profession.

While many CRNA's have received board certification pay to date, there are many that remain ineligible. Since certification to practice as a CRNA does not require a specific master's degree, many nurse anesthetists have chosen to diversify their

education by pursuing an advanced degree in other related fields. But CRNA's with masters degrees in education, administration, or management are not eligible for board certification pay since their graduate degree is not in a clinical specialty. Many CRNA's who have non-clinical master's degrees either chose or were guided by their respective services to pursue a degree other than in a clinical specialty. Many feel that diversity in education equates to a stronger, more viable profession. CRNA's do utilize education and management principles in their everyday practice and these skills are vital to performance of their duties. To deny a bonus to these individuals is unfair, and will certainly affect their morale as they work side-by-side with their less-experienced colleagues, who will collect a bonus for which they are not eligible. In addition, in the future this bonus will act as a financial disincentive for nurse anesthetists to diversify and broaden their horizons.

AANA encourages DOD and the respective services to reexamine the issue of awarding board certification pay only to CRNA's who have clinical master's degrees.

Comparison to Physician Bonuses

Even with the implementation of an increased ISP and the addition of a board certification pay, CRNA's remain cost effective anesthesia providers for DOD. Nurse anesthesia students receive no bonus money at all while attending anesthesia school. Then, CRNA's receive only \$6,000 per year in ISP, and an average of \$2,500 in board certification pay while under payback service obligation for four years. After their payback is completed, nurse anesthetists are eligible for a \$15,000 annual ISP bonus, with a continuation of the board certification pay. The alternatives to CRNA's, physician anesthesiologists, are eligible for four different bonuses. Physicians are eligible for a \$5,000 annual variable special pay upon entering residency. After their four years of residency, they immediately are eligible for an additional \$15,000 special pay, and a \$33,000 physician ISP annually. Upon passing board certification (usually about 18 months after residency is completed), an additional \$2,500 in board certification pay is added to the bonus total (See Appendix One for breakdown of total). All of this bonus money is paid to physicians annually while they are still under a payback service obligation.

In the first eight years of service alone, the result is a wide disparity in the amount of bonus dollars paid to physician anesthesiologists (\$253,500) compared to the amount paid to CRNA's (\$69,000).

HOW MORE EFFECTIVE UTILIZATION CAN SAVE MONEY WITHOUT SACRIFICING QUALITY OF CARE

In light of the fact that it costs less to educate CRNA's, that nurse anesthetists draw minimal bonuses compared to physician anesthesiologists, and that numerous studies show there is no significant differences in outcomes between anesthesia providers (See Appendix Two), it is clear that CRNA's are a cost-effective anesthesia provider for the military. From a budgetary standpoint, it is vitally important to utilize these high quality, cost-effective anesthesia providers in appropriate ratios with their physician anesthesiologist counterparts. "Over-supervision" is not only unproductive, it is financially wasteful and unnecessary.

During World War II, there were 17 CRNA's for every one anesthesiologist (17:1). In Vietnam, the ratio was approximately three to one (3:1). Currently the military is operating with much narrower ratios of CRNA's to anesthesiologists. As recently as last year, the Army was functioning with two CRNA's to every anesthesiologist (2:1); in the Air Force, the ratio was even narrower at approximately 1.6:1; and the Navy was at the level of nearly one CRNA for every one anesthesiologist (1:1).

Such practice models are generally unheard of in the private sector, even in locations where CRNA's practice with little or no autonomy. In most civilian hospitals, the practice ratios run approximately 3 or 4 CRNA's to every one anesthesiologist (3-4:1). The practice ratios could be increased in military treatment facilities from their current levels to a more cost-effective level of 3-4:1, with no sacrifice to quality of care.

The U.S. military services do not require anesthesiologist supervision of CRNA's. There are many military medical treatment facilities throughout the world which have military CRNA's as their sole anesthesia providers, and this practice arrangement has not had a negative impact on the quality of anesthesia care. Increasing numbers of anesthesiologists in the military has resulted in practice models with wasteful practice ratios. There continues to be proposals in all Services for increased supervision of CRNA's, with attempts by physician anesthesiologists to place unnecessary supervision language into local military treatment facility policies which would require strict adherence to a practice model of one CRNA to every one anesthesiologist.

A practice model requiring a 1:1 ratio for the provision of anesthesia would not only be financially wasteful, but even more importantly, the Services would lose mobilization effectiveness by requiring two anesthesia providers where autonomous CRNA's have previously provided anesthesia safely and effectively for over 100 years. This military standard is based on the need of the Services to provide a wide range of health care with as few providers as necessary during mobilization to remote or isolated locations. Historically, CRNA's have always worked independently at such locations; therefore, there is no basis for requiring supervision of CRNA's when they then return to more urban facilities. A predetermined ratio of supervision should not become part of the practice environment. The supervision of CRNA's should be based on the experience of the anesthesia care providers (both CRNA and anesthesiologist), the mission of the medical treatment facility, and the complexity and type of surgical procedure.

The ability to function autonomously in remote locations is required of all military CRNA's. It is the promise of this independence that draws many to military anesthesia service. Therefore, any attempt to adopt an anesthesia practice standard that would require that an anesthesia care team consisting of a CRNA and a supervising anesthesiologist to deliver all anesthesia would not only undermine mobilization effectiveness, but it would also prove detrimental to the morale of military CRNA's and would undermine attempts by the Services to recruit highly motivated individuals.

AANA recommends that this Committee direct DOD to maintain the mobilization effectiveness of CRNA's by enforcement of the current practice standard of autonomous anesthesia care by CRNA's in all locations, with practice ratios of 3-4:1. This ratio is more cost-effective, with no sacrifice of quality of care.

CONCLUSION

In conclusion, the AANA believes that retention and the appropriate utilization of CRNA's in the Services is of critical concern. There is a deficit of 48 CRNA's in fiscal year 1998. Many active-duty CRNA's are suffering from ineffective practice models. The efforts detailed above will assist the Services in maintaining the military's ability to meet its peacetime and mobilization medical mission in a cost-effective manner without sacrificing quality of care. We thank the Committee for its support of CRNA's. For further information, please contact Greta Todd, AANA Associate Director of Federal Government Affairs, at 202/484-8400.

Pursuant to clause 2(g)(4) of the Rule XI of the Rules of the House of Representatives, the American Association of Nurse Anesthetists (AANA) and the witness representing AANA, Ronald Van Nest, disclose the following federal grants:

The Council on Accreditation of Nurse Anesthesia Educational Programs, which is a subsidiary of the American Association of Nurse Anesthetists, was awarded a grant from the U.S. Department of Education, Funds for the Improvement of Post Secondary Education program in the following amounts:

October 1, 1994	\$104,059
October 1, 1995	108,529
October 1, 1996	113,529
October 1, 1997	

APPENDIX ONE

Timeline	CRNA	Anesthesiologists
End 1st year	\$0	\$5,000 Variable Special Pay.
End 2nd year	0	5,000
Mid-year: End nurse anesthesia program. Begin CRNA payback.	0	
End 3rd year	¹ 6,000	5,000.
	² \$2,500	
End 4th year	6,000	5,000.
End Residency. Begin Anesthesiologist payback	2,500	
End 5th year	6,000	
	2,500	5,000.
		15,000 Additional Spec. Pay.
		33,000 physician ISP.

APPENDIX ONE—Continued

Timeline	CRNA	Anesthesiologists
End 6th year	6,000 2,500	5,000. 15,000. 33,000.
Mid-year: physician passes board		2,500 Board Cert. Pay.
End 7th year: End CRNA payback	15,000 2,500	12,000 Increased VSP. 15,000. 33,000. 2,500.
End 8th year	15,000	
End physician payback	2,500	12,000. 15,000. 33,000. 2,500.
Total bonuses cost to DOD	69,000	253,500

¹ISP.²BCP.

APPENDIX TWO

NO SIGNIFICANT DIFFERENCES IN ANESTHESIA OUTCOME BY PROVIDER: SYNOPSIS OF AVAILABLE PUBLISHED INFORMATION COMPARING CRNA AND ANESTHESIOLOGIST PATIENT ANESTHESIA OUTCOMES

Patients and health care institutions have an interest in information concerning the quality of care given by health care providers.

Nurse anesthetists have been providing quality anesthesia care in the United States for more than 100 years. In administering more than 65 percent of the anesthetics given annually, CRNA's have compiled an enviable safety record. No studies to date that have addressed anesthesia care outcomes have demonstrated that there is a difference in patient outcomes based on the type of provider.

—In a study mandated by the U.S. Congress and performed by the National Academy of Sciences, National Research Council, the report to Congress states: "There was no association of complications of anesthesia with the qualifications of the anesthetist or with the type of anesthesia." (House Committee Print No. 36, Health Care For American Veterans, page 156, dated June 7, 1977.)

—A study concerning anesthetic-related deaths from 1969–1976 by Albert Bechtoldt, Jr. and the Anesthesia Study Committee, published in the North Carolina Medical Journal in April 1981, stated on page 257 that: "Therefore, when we calculated the incidence of anesthetic-related deaths for each group which administered the anesthetic (Figure 2,) we found that the incidence among the three major groups (the CRNA, the anesthesiologist and the combination of CRNA and anesthesiologist) to be rather similar. Although the CRNA working alone accounted for about half of the anesthetic-related deaths, the CRNA working alone also accounted for about half of the anesthetics administered."

—The Stanford Center for Health Care Research conducted a 17-hospital intensive study of institutional differences. A report of the study stated that: "Thus, using conservative statistical methods, we concluded that there were no significant differences in outcomes between the two groups of hospitals defined by type of anesthesia provider." See Forrest WH Jr. "Outcome—The Effect of the Provider," at page 137 in Hirsh RA, et al (eds): Health Care Delivery in Anesthesia. 1980. Philadelphia: George F. Stickley Company.

—A 1994 legislatively mandated study by the Minnesota Department of Health looked at the provision of anesthesia services by anesthesiologists and certified nurse anesthetists. The resulting assessment of the existing studies determined that there are no studies, either national or Minnesota-specific, that conclu-

sively show a difference in patient outcomes based on type of anesthesia provider.

—The Center for Health Economics Research (CHER) completed a report in January 1988 for the Health Care Financing Administration (HCFA). The purpose of the report was to assist HCFA in the development of a fee schedule for CRNA direct Medicare reimbursement, effective January 1, 1989. CHER is an independent Boston-area based research organization that analyzes and evaluates federal health programs. As part of the report, CHER conducted a review of the literature concerning anesthesia quality. CHER addressed the question of whether the quality of anesthesia care varies by the type of anesthesia provider.

As part of its literature review, CHER reviewed three studies which have explicitly examined anesthesia outcomes by provider type. The CHER researchers concluded that “none of the studies detected significant differences in anesthesia outcomes among nurse anesthetists versus anesthesiologists.” The CHER researchers stated that anesthesia outcomes between CRNA’s and anesthesiologists “have not been shown to differ.”

The U.S. House of Representatives Committee on Armed Services Report on H.R. 1748, the Department of Defense Authorization Act for Fiscal Year 1988–89, commented on a proposed change in the supervision of nurse anesthetists in the military services that would require anesthesiologist supervision. The committee stated that: “From the quality of care standpoint, the committee is not aware of any data that suggests that nurse anesthetists need a higher level of supervision than they currently have. If such data exists, the committee would be very interested to review it.”

At pages 208 to 209, the report stated that: “The committee understands that the current practice in the civilian, as well as military, medical care systems is that a nurse anesthetist must be supervised by a physician. Under the change proposed within the military, a nurse anesthetist would be required to be supervised by an anesthesiologist.

“The committee is extremely skeptical that such a policy change makes sense from a patient care, quality of care or medical readiness standpoint. In terms of patient care, the requirement that an anesthesiologist supervise every anesthetist would mean that many anesthesiologists would be forced to provide less patient care. Some small hospitals that currently have only one nurse anesthetist and no anesthesiologist would lose their anesthesia capability altogether under this proposal.”

In concluding the discussion of this subject, the House committee said that the adoption of a change in policy that would require anesthesiologist supervision of nurse anesthetists must be supported by compelling reasons, with full explanation and supporting data.

The practice of anesthesia has become safer in recent years due to improvements in pharmacological agents and the introduction of sophisticated technology. Recent studies have shown a dramatic reduction in anesthesia mortality rate to approximately 1 per 250,000 anesthetics.

In 1990, the Center for Disease Control (CDC) intended to conduct a research study on morbidity and mortality in anesthesia. Following a review of the anesthesia data, the CDC concluded that morbidity and mortality in anesthesia was too low to warrant the study.

In a 1988 book, Mark Wood of the St. Paul Fire and Marine Insurance Company summarized a St. Paul study of its anesthesia-related claims. St. Paul studied the leading medical liability allegations that St. Paul-insured anesthesiologists and CRNA’s reported between 1981 and 1985. The data consisted of all claims, including pending and closed claims. St. Paul concluded that “nurse anesthetist loss experience is very similar to that of anesthesiologists * * *.” See Wood, MD, “Monitoring Equipment and Loss Reduction: An Insurer’s View,” in Gravenstein JS, Holzer JF (eds): *Safety and Cost Contained in Anesthesia*. 1988. Stoneham, Mass.: Butterworth Publishers.

From 1988 to 1995, St. Paul has returned nearly \$24,000,000 in premiums to its insured CRNA’s because the loss experience was substantially better than St. Paul originally predicted. Further, St. Paul stated in a July 1995 publication: *The St. Paul Medical Services Nurse Anesthetist Update*, that “nurse anesthetists insured by St. Paul will experience an average countrywide 7 percent decrease in their medical professional liability insurance rates in 1995.

AANA General Counsel Gene A. Blumenreich of Nutter, McClennen and Fish, LLP, Boston, Massachusetts has concluded that while the fact that there is no difference regarding the quality of care rendered by anesthesiologists and CRNA’s “may be surprising to the less knowledgeable, an understanding of the nature of anesthesia would lead one to expect this. The vast majority of anesthesia-related acci-

dents have nothing to do with the level of education of the provider." Blumenreich GA, Wolf BL. 1986. "Restrictions on CRNA's imposed by physician-controlled insurance companies." AANA Journal 54:6:538-539.

The most common anesthesia accidents are lack of oxygen supplied to the patient (hypoxia), intubation into the esophagus rather than the trachea and disconnection of oxygen supply to the patient. All of these accidents result from lack of attention to monitoring the patient, not lack of education. In fact, the Harvard Medical School standards in anesthesia are directed toward monitoring, which reiterates the basic point: Most anesthesia incidents relate to lack of attention to monitoring the patient, not lack of education.

As Mr. Blumenreich has stated: "Anesthesia seems to be an area where, beyond a certain level, outcome is only minimally affected by medical knowledge but is greatly affected by factors such as attention, concentration, organization and the ability to function as part of a team; factors toward which all professions strive but which no profession may claim a monopoly." Id.

CRNA's offer a cost-effective alternative to all-physician care in the field of anesthesia. Anesthesia is an appropriate specialty for either nurses or physicians. The evidence to date is compelling and comprehensive that CRNA's provide safe, quality anesthesia care. Patient outcome is similar regardless of whether the anesthesia provider is a CRNA or an anesthesiologist.

Senator STEVENS. Thank you very much.

Senator INOUE.

Senator INOUE. Is it correct that of all the medical and surgical cases requiring anesthesia in this country, 85 percent are handled by nurse anesthetists?

Mr. VAN NEST. I cannot support that number, Senator. I have heard varying numbers. One number that the AANA uses is about 65 percent of all the anesthesia rendered in rural hospitals is done by nurse anesthetists. We are roughly around 50 percent nationwide on anesthesia service. A lot of the service, however, that is rendered by an anesthesiologist is co-rendered by a nurse anesthetist, either in a supervisory or in a collaborative relationship. So there is a lot of anesthesia being administered by nurse anesthetists that may also be considered rendered by an anesthesiologist.

Senator INOUE. What would be the national ratio between nurse anesthetists and M.D. anesthesiologists in hospitals?

Mr. VAN NEST. I am speaking for myself on this answer at this moment. The membership in the American Association of Nurse Anesthetists and the membership in the American Society of Anesthesiologists is roughly the same. We are very close, within a couple of thousand members, to the best of my knowledge.

Senator INOUE. Thank you.

Senator STEVENS. Thank you very much.

STATEMENT OF CHARLES L. CALKINS, NATIONAL EXECUTIVE SECRETARY, FLEET RESERVE ASSOCIATION

Senator STEVENS. Our next witness is Charles Calkins, of the Fleet Reserve Association.

Mr. CALKINS. Mr. Chairman, Senator Inouye, thank you for the opportunity to present the Fleet Reserve Association's priorities regarding personnel issues for fiscal year 1999.

I also wish to express appreciation to you and members of the subcommittee for your strong support of the men and women serving in our uniformed services. Thanks to your efforts, they have seen significant quality-of-life improvements. Our country and its uniformed services face many challenges, not the least of which is turmoil in distant parts of the world that threatens our national

interests. Inadequate defense funds, insufficient manpower, declining recruiting and retention rates, widening pay comparability, crumbling infrastructure, and disenfranchised older retirees add to these challenges.

These and other issues are addressed in our complete statement and, in the interest of time, I will focus only on several key points.

Compared to 1989, DOD funding in fiscal year 1999 will have dropped approximately \$40 billion. This reduction helped to balance the budget, generate a projected surplus, and free up money for other government programs. Notable is an increase by next year of over \$208 billion, compared to 1989, in Department of Health and Human Services funding.

Keeping in mind the challenges discussed above, it seems those most deserving of consideration in the reallocation of government spending are the men and women who are now sharing the sacrifices and hardships of serving in the armed forces. In addition to these major challenges, additional personnel cuts are planned—not because the workload has decreased, but because money saved from the personnel account is sorely needed for procurement and modernization.

Next year's mission demands will be greater than in 1998, and the Navy can ill afford to lose 18,000 more personnel, as recommended in the Quadrennial Defense Review [QDR]. And the Marine Corps should not be mandated to further reduce manpower below pre-1998 levels.

Annual military pay raises always trail 15 months behind the applicable employment cost index [ECI]. And each year the pay gap grows wider. Hopefully Congress has not forgotten the need, when in 1981 we had to raise the pay of its senior enlisted members. At that time, many were voting with their feet.

The Fleet Reserve Association [FRA] urges larger pay adjustments to narrow the pay gap in accordance with the latest full ECI data immediately prior to the effective date of the pay raise, and a gradual pay increase for senior enlisted personnel to bring it to a level commensurate with their leadership roles.

Regarding health care, improvements are needed in Tricare. And a major priority is the test of the Federal Employees Health Benefit Program option for older beneficiaries. Confusion over the three military retirement plans is a concern for our sea services leaders, and all uniformed service members are pondering career decisions. Second- and third-term enlistees—and we are finding that first-termers—are also discovering that the retirement program they may look forward to provides significantly less financially than the previous two programs. Yet they must pay the same amount for health care for themselves and their families.

The FRA believes Congress should repeal the 1986 Military Retirement Reform Act or redux.

PREPARED STATEMENT

Mr. Chairman, Senator Inouye, the FRA shipmates appreciate your untiring commitment and support of personnel now serving and those who have served in the past. Thank you.

[The statement follows:]

PREPARED STATEMENT OF CHARLES L. CALKINS

INTRODUCTION

The FRA is a Congressionally-chartered organization of nearly 160,000 enlisted Sea Service personnel who are now serving, or have served in the U.S. Navy, Marine Corps, and Coast Guard. The Association has been the ombudsman for the three services' active, reserve, and retired components since 1924. Most members are senior enlisted personnel who have served in one to three wars and have 20 to 30 (or more) years of honorable service.

The Association's three staff members who are responsible for preparing this statement are Sea Service veterans with more than 100 years of combined experience including active duty stints and time working military issues and programs on Capitol Hill. They take this opportunity to warn Congress of the pending damage to the Nation's defense establishment if the fiscal year 1999 defense budget is approved in its present form.

MILITARY READINESS IS NOW AT CODE YELLOW

It's impossible to ignore the many indicators spelling out the challenges facing the United States and its Armed Forces. In addition to inadequate funds and a very unsteady world, insufficient manpower is causing concern, recruiting and retention are worsening, pay comparability is widening, optempo continues to plague perstempo, infrastructure is quickly deteriorating, retired service members are up-in-arms for being "disenfranchised" at medical treatment facilities, commissaries are under constant threats of closure or privatization, and the list goes on.

In this statement, FRA will briefly address most of these topics plus others of concern to its membership. (Additional information relating to these views is available on request from Retired Navy Master Chief Joe Barnes, FRA Director of Legislative Programs, at 703-683-1400 x 312.)

MANPOWER

The Chairman of the Joint Chiefs of Staff, said it best, "The reality of our current tempo is that we are doing more operations with a smaller force."

Since the Department of Defense (DOD) convinced Congress that the so-called "peacetime" Armed Forces need but a "few good men and women," operation tempos have significantly increased. The "downsizing" of manpower strengths has led to longer deployments, as well as family problems, instability, stress, and falling retention numbers, to name a few.

Take a look at the Navy's situation. When things were "hot" between the United States and USSR, only about 25 percent of the force was deployed at one time. Today, according to Vice Adm. Daniel Oliver, Chief of Naval Personnel, it's 30-33 percent forward deployed with 50-60 percent underway on any given day. With the trouble spots in the Middle East apparently here to stay, the Navy's mission demands will be greater than in fiscal year 1998 and it can ill-afford to lose 18,000 more personnel as recommended in the Quadrennial Defense Review (QDR).

In a recent visit to Naval installations in the Virginia Tidewater area, FRA National President Robert Beese found discontent among submariners fearing that further manpower reductions will adversely effect their mission, yet the QDR recommends reducing the Navy's submarine force from 73 boats to 50. However, the Navy plans to have 75 submarines operational in fiscal year 1999. Currently, submarines are deployed 50 percent of the time with 25 percent forward deployed. (Beese recommends that more members of Congress should visit the boats. Arrangements may be made through the Navy or FRA.)

The Marines were deployed less during the Cold War years than now. Despite indications that optempo would be reduced in fiscal year 1999, Marine land forces plan to be involved in 28 joint exercises, the same number as in fiscal year 1997, and 66 training exercises, five (5) more than scheduled for fiscal year 1998. The Marines are expected to do this with 1,800 less personnel than in fiscal years 1997 and 1998.

FRA states unequivocally that the Navy and Marine Corps should not be mandated to further reduce manpower strengths below pre-fiscal year 1998 levels.

RECRUITING

The good news for fiscal year 1997 was that the Armed Services met their quality and numerical goals. The bad news is that it was done with smoke and mirrors. The Pentagon reduced the original requirements. Quality is assessed at a 60-90 percentile of accessions scoring in the upper half of the military's entrance exams, but

the services just eked past the lower figure at the 63 percent level down from 74 percent in 1992.

Recruiting will be tougher for fiscal year 1999. The propensity of youths interested in serving their country in uniform has dropped from 26.2 percent in 1991 to 20.7 percent in 1996. The economy is doing especially well and civilian employment is there for anyone searching for a job. Especially alarming is the fact that except for educational benefits, there are fewer reasons for today's youth to enlist in the military.

Even pay and compensation fails to influence a single prospect's decision to join one of the Armed Forces. The consensus is that the military does not fairly treat its people (not surprising to military retirees) and most do not believe the military takes better care of its people than civilian employers. Last, but certainly not least, the bitter reality that the military fails to fulfill promises to its retirees (and veterans), results in fewer trusted family members or mentors encouraging the Nation's youth to seek a tour of duty in the Army, Navy, Marine Corps, Air Force, or Coast Guard.

What's the answer? More funds to beef up recruiting programs. Additional monies will provide extra recruiters to canvass for prospective accessions, help to bolster recruiters' morale, relieve family tensions, and buy more positive advertising. This will help "sell" the nation's mothers and fathers, aunts and uncles, grandfathers, and grandmothers, and hopefully spark the interest of young people to consider donning the military uniform.

DOD spends an average of \$7,000 to access one recruit. If Congress should see fit to add more dollars to attain the Services' goals, then the money is wisely spent, thus assuring our citizens that they have the best and brightest of the Nation's youth manning the ramparts after effective training to achieve the highest state of combat readiness.

RETENTION

The Navy predicts tougher retention times in the near future and the following analysis supports this contention.

NAVY

[In percent]

	First termers	Second termers	Third termers
Prior	38	54	62
Current	30.8	48.4	57

Even the Air Force has fewer experienced and trained personnel staying on board for longer tours of duty. Its retention rates look like this:

[In percent]

	First termers	Second termers	Third termers
Prior	61	82	97
Current	58	72	94

Most significant is the loss in second term service members who have the most influence on the young first termers. They are small unit leaders expected to replace more senior enlisted members in the out years. With more retirements coming on line, second and third termers are needed even more than during the mid-1980's and early 1990's. The military loses a fraction of its high state of readiness with each departure.

Retention is down for a number of reasons: better paying jobs in the civilian sector for trained personnel; excessive time away from family; questionable career choice due to the drawdown; lack of promotion opportunities; loss of confidence in senior leadership; job dissatisfaction; shortfalls in personnel budget (PCS and SRB delays); and erosion of retirement benefits.

The attrition rate among young men and women prior to completing their first enlistment is also troubling. About one-third drop out for one reason or another. The military must develop a better program to screen applicants. FRA recommends enactment of legislation allowing the military to review juvenile records of those seeking to join its ranks.

For example, 24,604 of 39,496 of one military service's accessions for 1996 required either drug or moral waivers. Some officials are convinced that these youths will repeat similar offenses for which they were granted waivers prior to the end of active service.

PAY AND ALLOWANCES

FRA is grateful for the enhancement of a number of compensation items in the Fiscal Year 1998 National Defense Authorization and Appropriations Acts. Most noteworthy were the consolidation of the quarters and housing allowances, an increase in hazardous duty incentive pay, special pay for certain hardship duty locales, bonuses in lieu of special pay for enlisted members extending certain overseas tours, etc. However, FRA was disappointed that Congress "reformed" the subsistence allowance.

Pay.—Last year FRA provided a chart depicting how the Administration, et al., determines annual military pay raises which are always 15 months behind the applicable Employment Cost Index (ECI). Every year the gap comparing military pay with civilian wages, grows wider, and it now stands above the 13 percent mark.

Also included in last year's presentation was an additional chart depicting the decline in the ratio of pay between a senior petty officer/noncommissioned officer and a recruit seaman/private. Prior to the All Volunteer Force the ratio was 4.6:1. It is now 2.6:1, indicating nearly a 44 percent decline. In pursuit of a justification for the decline, which is not indicative in the commissioned officer pay grades, FRA heard many excuses. Most prevalent was that junior personnel need more pay because they're married, have children, are on food stamps, in receipt of WIC, can't afford civilian rental and other costs including auto insurance, etc.

FRA firmly believes military personnel in the junior ranks should be paid adequate pay and allowances, but not at the expense of their senior enlisted leaders.

Hopefully, Congress hasn't forgotten that it had to raise the pay of its senior enlisted service members in 1981 above that authorized for other pay grades. Petty officers and non-commissioned officers in those pay grades were voting with their feet. The Navy did not have enough experienced petty officers to take its ships to sea. The Army was deeply concerned that its forces had become "hollow". Is Congress aware that the same problem is beginning to eat away at the senior and mid-level enlisted ranks?

FRA has turned on the caution light. The annual cry and hue for more junior enlisted pay is again heard however senior enlisted are not included.

Basic allowance for subsistence (BAS).—As stated above, FRA is extremely disappointed with Congress capping future BAS payments for career enlisted personnel in order to better compensate non-career junior personnel. The Association finds this unacceptable, not because the latter group is not deserving of recognition, but that the law plays one against the other.

Sea pay.—For the past two years FRA surveyed Navy senior enlisted leaders as to their thoughts concerning payment of sea pay to junior enlisted personnel (E1–E3) serving aboard naval vessels whose more senior crew members are authorized sea pay. The Association has received a strong affirmative, particularly from those petty officers (and many officers) who serve or have been deployed aboard ship for 6 months or more. The idea came from a 1995 visit, in connection with the Defense Science Board Task Force on Quality of Life, aboard the U.S.S. *Kitty Hawk* and U.S.S. *Anchorage*.

Recommendations.—In view of the above statements on Pay and Allowances, FRA recommends the following Congressional actions.

- Narrow the pay gap between military pay and civilian wages by increasing military pay in accordance with the latest full ECI growth immediately prior to the effective date of the pay raise.
- Gradually increase senior enlisted personnel basic pay to a level that is more commensurate with their leadership roles.
- Revise Section 602 of Public Law 105–85 to provide equitable increases in BAS for all enlisted personnel.
- Adopt sea pay for pay grades E1 thru E3 for those members assigned duty aboard U.S. naval vessels deployed for 30 days or more.

Action taken on behalf of these recommendations should include authorizing and appropriating additional funds without directing the Services to meet the obligation under current funding policies.

HEALTH CARE

FRA has joined with The Military Coalition (TMC) in its request for enhanced health care programs for uniformed services personnel. In a statement prepared for

the subcommittees having oversight of the military's health care program, TMC seeks improvements in TriCare, adoption of a Medicare subvention program for those over-65 beneficiaries unable to access military treatment facilities, a wide-spread pharmaceutical drug mail-order program, and a Federal Employees Health Benefit Program (FEHBP) test program for over-65 beneficiaries who have no access to MTF's or Medicare-contracted HMO's.

COMMISSARIES

Commissaries are part of the military compensation package. The system has been around long enough to become a permanent part of the military's benefit package, especially for those who endure a career in the Armed Forces.

Nevertheless, the privilege to use or operate the commissaries has been under continual scrutiny since the early 1970's. It's either close the stores, privatize them, and/or increase the surcharge.

Currently, commissary operations are subsidized by Congressional appropriations, and rightly so. The subsidy funds operating costs that include pay for the stores' employees. It was Congress that mandated the services to provide pay and benefits to the workers at identical wage scales afforded federal employees.

FRA urges Congress to continue to authorize and appropriate sufficient funds to maintain the commissary program at the current level of service to its customers.

TRANSITION AND RELOCATION ASSISTANCE PROGRAMS

Efforts may be underway to abolish the Transition Assistance Program (TAP) and the Relocation Assistance Program. The reason given is that there is no longer any use for them. FRA disagrees.

First, the "drawdown" in military manpower strengths may continue into fiscal year 1999, despite FRA's opposition. As long as that threat hangs over the heads of our uniformed personnel, there is a compelling need for TAP.

Even if the "drawdown" is stopped for fiscal year 1999, FRA believes the military services have an obligation to reward their honorably discharged members with a program assisting in returning them to civilian life.

The Relocation Assistance Program is not, nor was it ever intended to be related to TAP. It's a program assisting service members transferred to new bases. Many of the younger members, particularly those with families, welcome the assistance when moving to a new base where everything is unfamiliar.

FRA urges Congress to fully fund both programs so that they may serve those who serve or have served the Nation in uniform.

MILITARY RETIREMENT

Confusion over the three military retirement plans is causing concern for the many uniformed service members contemplating a career in the Armed Forces. Those entering the military after September 8, 1980 will soon be eligible for retirement. They probably know that the computation of their retired pay will produce lower payments than those received by their comrades-in-arms whose entry dates were prior to the 1980 date.

Service members with dates of entry after July 31, 1986, now second and third term enlistees, are discovering that the retirement program they may look forward to provides less financial rewards than those enlisting prior to the 1986 date and, again, prior to 1980 date. They question whether further commitment as a member of the active forces is worth the additional years of sacrifices and hardships.

If the post-1986 members stay, they face reduced pay over those retiring earlier, however they must pay the same amount for the military's health care (TriCare) for themselves and their families.

FRA believes Congress should repeal the Military Retirement Reform Act, Public Law 99-348, of July 1, 1986. Its effect on retention in the Armed Forces is now becoming clear. FRA predicts that this will get worse if Congress fails to take positive action to make military retirement more attractive to the post-July 31, 1986 accessions.

Additionally, FRA recommends that Congress provide equitable cost-of-living adjustments (COLA's) to all military retirees reduced only by the month retired, not the year.

CONCURRENT RECEIPT

Many words have been written advocating the concurrent receipt of non-disability military retired pay and veterans' compensation without reduction in either payment. To date, Congress has seen fit to ignore this injustice and the issue continues

to be a "hot potato" for both the National Security/Armed Services and Veterans Affairs Committees.

This distinguished Subcommittee is familiar with the issue and legislation introduced by Rep. Michael Bilirakis of Florida. There are three bills, each covering a broader number of recipients. FRA supports all three but realizes the costs associated with two of the bills are prohibitive. Therefore, the Association urges the adoption of H.R. 44 with a cost of \$42 million per year. The legislation addresses the need to supplement the income of the most disabled of military retirees.

SURVIVOR BENEFITS

FRA salutes Congress for enacting the "Forgotten Widows" legislation. It should offer a bit more dignity to these ladies as well as some financial relief. The task now is for DOD and the military/veterans organization to disseminate the word on how to apply. Upon receipt of this information, FRA will give it widespread distribution throughout the Association's membership.

There are two additional "fixes" FRA wishes Congress to address for fiscal year 1999. The first concerns surviving spouses of service members formerly in receipt of Dependents Indemnity Compensation (DIC) who lost it upon remarriage. A few years ago these spouses were authorized resumption of payments if their subsequent marriage terminated upon death or divorce. The Association seeks this subcommittee's support in urging the Committees on Veterans' Affairs to reauthorize and fund receipt of DIC payments to these spouses. (38 USC applies.)

The second issue is authorization for a paid-up option in the Survivor Benefit Plan (SBP). Currently there is considerable discontent with SBP premiums-for-life provisions. Once the participant reaches a more senior year in life, he/she questions the value in continuing the plan. More serious attention is brought to the issue when the covered spouse attains the age of 62. For most participants, once the spouse becomes eligible for Social Security benefits, the 55 percent-of-retired-pay promise drops to 35 percent.

In a July 1996 DOD study of SBP, it was discovered that the government's statutory contribution of 40 percent has dropped to 26 percent. FRA believes there is justification to seek an amendment to SBP (10 USC 1447-1460) to offer the retiree-participant a paid-up plan once he or she attains the age of 70, or pays premiums into the plan for 30 years, whichever occurs first. (The Association is in support of the position advocated by The Military Coalition (TMC) on this issue.)

UNIFORMED SERVICES THRIFT SAVINGS PLAN (USTSP)

FRA strongly supports encouraging personnel to save money for future financial needs, however the Association is opposed to the proposed USTSP plan because it is flawed. Despite assurances that the proposal is for all military personnel, junior enlisted service members, for the most part, will not be able to participate. Money is tight, particularly for those who are married.

As a representative of enlisted Sea Service personnel, FRA has received only a few requests from its members urging support of the plan. Other considerations prevented the Association from seeking the enactment of the proposal and FRA will be pleased, if requested, to share them with the Subcommittee.

MONTGOMERY GI BILL AND VEAP

In 1996 legislation was enacted authorizing service members enrolled in the Veterans Educational Assistance Program (VEAP) to enroll in the Montgomery GI Bill (MGIB), a more generous plan. The law provided that members with active VEAP accounts on October 9, 1996 would be eligible to take advantage of the conversion opportunity. However, a legal interpretation of the law later required members to still have money in the account in order to be considered "active." This disenfranchised thousands of members who had been counseled by the services to withdraw the funds in their accounts.

Many of the Association's members have expressed frustration over the issue. Since the counseling was in error, FRA seeks the Subcommittee's support in the allocation of additional funds in the Veterans' Affairs budget with an authorization in order to expand the number of members who may convert.

NAVY AND MARINE CORPS RESERVE

Most issues addressed above also apply to the Reserve enlisted members of the Navy and Marine Corps, and somewhat to the Coast Guard. FRA also recommends your favorable consideration of the following proposals.

- Amend the IRS Tax Code to authorize tax deductions for un-reimbursed expenses involved in travel and transportation to and from Reserve drill sites.
- Require that the States not calculate remuneration for Reserve services when computing unemployment compensation.
- Authorize a test of unlimited commissary privileges for Reservists and, if successful, authorize full time access.

The Navy, Marine Corps, and Coast Guard Reserves add greatly to the capability and combat readiness of their respective services. Maintaining their well-being and combat readiness in recognition of their contributions to today's demanding optempo is a must. Every taxpayer dollar to fund the reserve components provides a three-fold or greater return on the investment.

CONCLUSION

Mister Chairman, FRA Shipmates wish to express their sincere appreciation to you and members of the Subcommittee for your tremendous support of the men and women serving in our Nation's Uniformed Services. Thanks to your commitment and leadership, the quality of life for our military personnel has significantly improved in recent years.

Senator INOUE [presiding]. I thank you very much, sir. I can assure you that the committee's concern echoes yours. We are very much concerned about retention and recruiting. Signs are beginning to show that we may be headed for trouble down the road.

Mr. CALKINS. Well, I just had a discussion with our new MCPON this morning over at our headquarters. And he has had roughly 20 audiences since he has been in office. And his comment to me was: Chuck, please help us do something, because we have really got a problem. And like he said, it is coming not only from the second- and third-termers, but from the first-termers, as well. They are taking a look down the line.

And we would appreciate any help you could give us on that, Senator.

Senator INOUE. Thank you very much.

Mr. CALKINS. Thank you.

STATEMENT OF ANN KOLKER, EXECUTIVE DIRECTOR, OVARIAN CANCER NATIONAL ALLIANCE: OVAR'COMING TOGETHER

Senator INOUE. May I now call upon Ms. Ann Kolker, Executive Director, Ovarian Cancer National Alliance.

Ms. Kolker, welcome.

Ms. KOLKER. Thank you, Senator. Thank you very much for the opportunity to testify at this important hearing. And thank you, Senator Inouye and other members of the committee, for including, and last year increasing, critically needed funds for ovarian cancer research in the Congressional Special Interest Research Program.

I am Ann Kolker, a founder, and now the Executive Director of the Ovarian Cancer National Alliance. The Alliance was formed last summer, and it is the creation of leaders from the growing number of ovarian cancer groups across the country. These groups united to establish an umbrella organization, the Alliance, in order to have a coordinated effort that will put ovarian cancer policy, education and research issues squarely on the national agenda.

Our statement today marks our first public appearance here in the Senate.

I also serve as the consumer representative on the integration panel of the DOD Ovarian Cancer Research Program. As you and other members of the committee are aware I am certain, the Ovarian Cancer Research Program is still in its first funding cycle. So

there is not a track record yet for this program as there is for the Breast Cancer Research Program, for example. We look to the success of that effort to inform the expansion of the Ovarian Cancer Program.

On behalf of the Alliance, I have a straightforward message: Ovarian cancer research has, to date, been drastically underfunded. It is urgent that policymakers dramatically expand resources devoted to this disease. The goal must be to increase in a significant way the ovarian cancer survival rate, which is so poor that this disease has the unwelcome distinction of being the deadliest of the female cancers.

Ovarian cancer is indeed life threatening. More than 50 percent of the women who have it die within 5 years of diagnosis. That is because unfortunately, in at least 70 percent of cases, women are not diagnosed until the cancer has reached an advanced stage, when it is often too late to cure. But, as with other cancers, when women are diagnosed in early stages—which occurs in less than one-quarter of the cases—the 5-year survival rate is over 90 percent. And I was very fortunate to be diagnosed in this stage.

The key to improved survival is of course early detection. And for ovarian cancer, a critical component of earlier detection is a better understanding of key scientific aspects of the disease. But this will only happen if research is substantially increased. The creation of the Ovarian Cancer Research Program several years ago, and last year's expanded appropriation of \$10 million, were important steps in that direction.

Today we ask you to consider a significant funding increase for the program. It is essential to build on the work that is just underway and to bolster research on a disease that each year kills one-third as many women as breast cancer but receives less than one-tenth the dedicated research dollars in the DOD budget.

Our goal, as a part of this research, is to develop a screening tool that is reliable and affordable and easy to administer. There is no screening tool for ovarian cancer in the way that there is for cervical cancer, breast cancer and prostate cancer. And until this is done, early detection of ovarian cancer will continue to elude too many women and their families. Thousands and thousands of women will needlessly die. It is our strong hope that the research funded through this important program will ultimately yield a screening instrument.

The 183,000 women currently living with ovarian cancer, our sisters, our daughters, our granddaughters, and the millions of at-risk women around the country, and all of our families look to your support for increasing the resources dedicated to this lethal disease.

Thank you very, very much.

PREPARED STATEMENT

Senator INOUE. Thank you very much, Ms. Kolker.

At this moment, the Department of Defense Medical Department is in the process of developing a simple, reliable screening process.

Ms. KOLKER. We hope this happens in an expeditious way.

Senator INOUE. Thank you very much.

Ms. KOLKER. Thank you.

[The statement follows:]

PREPARED STATEMENT OF ANN KOLKER

Thank you very much for the opportunity to testify at this important hearing.

I am Ann Kolker, a founder and now executive director of the Ovarian Cancer National Alliance: Ovar'coming Together. The Alliance, formed last summer, is the creation of leaders from the growing number of ovarian cancer groups across the country. These groups united to establish an umbrella group, the Alliance, in order to have a coordinated, professionally managed effort that will put ovarian cancer policy, education and research issues squarely on the agenda of national policy makers and leaders in women's health. This statement, which addresses the importance of the Department of Defense Ovarian Cancer Research Program to our community, marks our first public appearance here in the Senate.

I also serve as a consumer representative on the Integration Panel of DOD Ovarian Cancer Research Program (OCRP). As members of the Committee are aware, the OCRP is still in its first funding cycle. This means there is no track record yet for the ovarian cancer program, as there is for other research efforts supported through the Congressional Special Interest Research Program. Many of us in the ovarian cancer community are aware of the success of the Breast Cancer Research Program. We look to that effort to inform the expansion and development of the ovarian cancer program.

On behalf of the Alliance, I have a straightforward message: ovarian cancer research has to date, been drastically under funded. It is urgent that policy makers dramatically expand resources devoted to this disease. The Alliance is grateful to this Committee for including \$10 million for ovarian cancer research in the Congressional Special Interest Research Program for fiscal year 1998. However, there is a critical need for more funds in the coming year. We must make an all out effort to increase, in a significant way, the ovarian cancer survival rate—which is so poor that this disease has the unwelcome distinction of being the deadliest of the female cancers.

Ovarian cancer is life threatening: more than 50 percent of the women who have it die within five years of diagnosis. That is because in at least 70 percent of cases, women are not diagnosed until the cancer has reached an advanced stage, when it is often too late to cure. In these all too common cases, the fatality rate is an alarming 80 percent. But when women are diagnosed in first stage, which occurs in less than one-quarter of cases, the five year survival rate is over 90 percent. I was fortunate to be diagnosed in this stage.

There is of course, more than one reason for these sobering statistics. Let me talk first about the one that this committee is in a position to address. Scientific research is drastically under funded. Knowledge about key aspects of ovarian cancer is so limited that diagnostic tools are too often imprecise and there is no simple, reliable screening mechanism for the general population. As is the case with other cancers, the key to improved survival is early detection. But for ovarian cancer—there are no early detection tools that work for the general population. These life-saving measures will only be found when more research funding is made available.

The creation of the Ovarian Cancer Research Program several years ago, and last year's expanded appropriation of \$10 million, were important steps, in that direction. Today we ask you to consider a significant funding increase, in order to build on the work that is just underway in the Ovarian Cancer Research Program, and to bolster research on a disease that each year kills one-third as many women as breast cancer, but receives less than one-tenth the dedicated research dollars in the DOD budget.

An ultimate goal of the Alliance is to prevent ovarian cancer. But, until this happens, an immediate priority is to increase the research dedicated to advancing scientific understanding. This in turn, will lead to a substantial increase in the early detection rate—particularly if the research community can identify bio and other markers that will improve diagnostic tools and result in the development of a reliable screening mechanism, as simple and accessible as the Pap smear is for cervical cancer, the mammogram for breast cancer or the PSA test for prostate cancer.

We know that the incidence of ovarian cancer is not nearly as great as breast, cervical or prostate cancer—the one good thing going for ovarian cancer. However, experience has shown us that early detection saves lives: the introduction of the Pap smear, and the use of mammography—even with their limitations—have dramatically improved early detection of cervical and breast cancer, and spared many people with these terrible diseases the early death sentence that 75 percent of women with ovarian cancer face.

For the Alliance, the development of a screening device that is affordable, reliable, and easy to administer is a top priority. Until this is done, early detection will continue to elude too many women and their families. Thousands and thousands of

women will needlessly continue to die. It is our strong hope that the research funded through this important program will ultimately yield such an instrument.

I don't want to leave the committee with the impression that the only reason for the very low rate of early detections is the dearth of research. Another critical factor is the limited awareness of the disease's subtle symptoms in the general medical community. Because it is not a common disease—affecting only 1 in 55 women—it is not “on the screen” of many internists and family physicians—the doctors who first see women who report abdominal discomfort, bloating, bleeding or some of the other common, but vague, symptoms. As a result, doctors often misinterpret these symptoms—telling their patients that their complaints “come with the territory of middle age” or referring them to gastroenterologists. All the while of course, the cancer is advancing, and the woman's chances of being treated in time to be cured diminish. Gaining the attention of the medical community about ovarian cancer will also help to increase early detection, and ultimately improve survivor outcome.

Another reason for the high mortality rate is that women themselves are not sufficiently aware of this disease. And even women with more explicit risk factors—women who have never had a child, or who have a strong family history of ovarian, breast or colon cancer—for example—cannot be assumed to be alert to the disease. This awareness problem is compounded by the fact that the symptoms may be subtle, such as unexplained fatigue, loss of appetite, nausea or constipation, and not necessarily unique to ovarian cancer. Broad-based public education programs will go a long way to inform women that when that when these symptoms persist over time, or changes in their bodies tell them “something is definitely wrong,” they must request testing for ovarian cancer, as well as for the litany of intestinal maladies that they are usually tested for. In short, increased awareness among both physicians and consumers should lead to more early stage diagnoses, and improved survival over time.

Those of us working with the Alliance are aware that there is vital research on many aspects of ovarian cancer taking place at cancer centers and in the private sector across the country. Indeed, without the dramatic advances that have been made in the past few years in treating ovarian cancer, many women, including myself, would not be around, or certainly, would not have active lives. For “a new lease on life” we are grateful to those who have conducted the research and trials that have led to improved therapies. We urge that as research is expanded to new areas, the important efforts to develop more effective treatments for advanced stage and treatment resistant disease continue to move forward.

In the past couple of years some new monies—both public and private—have been designated for ovarian cancer research. An infusion of new funds—particularly from this committee—has expanded the avenues of inquiry that can be pursued—and that is an exciting development. However, as we all know, much more remains to be done. It is essential to gain a better understanding of key scientific aspects of ovarian cancer, in order to increase dramatically the percentage of cases diagnosed in early stage, when the prospects of survival are very high, and to prevent recurrence, which plagues so many women.

Thank you for your attention to this important women's health issues. The 183,000 women currently living with ovarian cancer, our sisters, daughters and granddaughters, the millions of at-risk women around the country, and all of our families look to your support for increasing the resources dedicated to this lethal disease.

**STATEMENT OF CHARLES C. PARTRIDGE, COLONEL, USA (RETIRED),
NATIONAL MILITARY AND VETERANS ALLIANCE**

Senator INOUE. Our next witness is Colonel Charles C. Partridge, Legislative Counsel, National Association for Uniformed Services.

Colonel Partridge, welcome, sir.

Colonel PARTRIDGE. Thank you very much, Senator Inouye, for the opportunity to testify before this committee.

The National Association for Uniformed Services and the National Military Veterans Alliance's primary concern is the current problems in medical care with the Department of Defense. And I know that this committee, over the past 5 years, has increased spending for the Defense Health Program nearly a billion dollars over what was requested by the Department of Defense. We appre-

ciate your support in that. We also appreciate the support of this committee for medicare subvention, which is being developed now as a demonstration program.

Our problem today is that even when all of these programs are put into effect, there will still be some 40 to 50 percent of military beneficiaries who will have no benefit. They will have no access to the military hospitals even when medicare subvention is fully in place, or they live in a location where they cannot access a military hospital. Because at age 65, under the current law, military retirees are the only Federal employees who lose their guaranteed employer-provided benefit. At age 65, they have no guarantees. If they can get in a military hospital, if the space is there, if the drugs are there, of course they get them. Otherwise they do not.

We think medicare subvention will help, but it will not be the full solution. We think the complete solution is enacting the Federal Employees Health Benefit plan for military retirees, particularly those over 65. With the enactment of this program nationwide, it would provide access to all beneficiaries. They would have a benefit just as Federal civilians have from the time they enter the service until the time they leave it. Now they do not have that.

The Senate Armed Services Committee has taken a step in the right direction. They have a provision in the current defense bill that would provide for a demonstration of the Federal Employees Health Benefit Program. The problem is it is too small and it is underfunded. And what we would like this committee to do is to add something like \$100 million for the purpose of carrying out this program this coming year. And then, if we could add \$100 million a year for the next 4 years, we believe that would be a good start toward solving this problem.

That concludes my statement, Senator Inouye. If you have any questions, I would be glad to answer them.

PREPARED STATEMENT

Senator INOUE. Well, my concerns are your concerns. And I believe that promises made must be kept.

Colonel PARTRIDGE. Thank you, sir.

Senator INOUE. Colonel, we will do our best.

Colonel PARTRIDGE. Thank you.

Senator INOUE. Thank you very much, sir.

[The statement follows:]

PREPARED STATEMENT OF CHARLES C. PARTRIDGE

INTRODUCTION

Mr. Chairman and distinguished members of the Committee, NAUS and the National Military and Veterans Alliance would like to express its appreciation to you for holding these important hearings. The testimony provided here represents the collective views of our members.

The Alliance includes 15 military and veterans organizations. These organizations represent over 3,500,000 members of the seven uniformed services, officer and enlisted, active duty, reserve, National Guard, retired and other veterans plus their families and survivors. These organizations whose top priority is a strong national defense are listed below:

Naval Enlisted Reserve Association
American Military Retirees Association
American Retirees Association

Gold Star Wives of America
Korean War Veterans Association
Military Order of the Purple Heart

Military Order of the World Wars
National Assn. for Uniformed Services
Naval Reserve Association
Non Commissioned Officers Assn.
The Retired Enlisted Association

Society of Medical Consultants to the
Armed Forces
Tragedy Assistance Prog for Survivors
Veterans of Foreign Wars

Medical care along with adequate pay and inflation protected retired pay and commissaries are the top concerns of the military community. With base and hospital closures and reductions in medical personnel, the increasing lack of available health care continues to be a major concern to active and retired personnel alike.

We want to thank the committee for its long standing interest in Military Health Care and for its support for the Federal Employees Health Benefits Program for military retirees.

BACKGROUND

The military health system has several missions, first and foremost is caring for active duty troops and maintaining military medical care readiness, readiness training and contingency operations as well as providing care for active duty family members; continuing to provide promised, lifetime medical care to military retirees, and their family members. To carry out these missions, top quality personnel to staff military medical units, hospitals and clinics are essential. These personnel are attracted to military medicine through the Uniformed Services University of the Health Sciences, the U.S. Health Profession Scholarship Program and quality graduate medical education programs sponsored by the various military medical services. Each is an important element of the system and are all linked together.

A military medical system is necessary to support not only the present active forces but also to meet future requirements. To attract, maintain and properly certify highly qualified medical professionals requires assuring them that they will have a complete range of patients with varied health problems to include older retirees. They can't be adequately trained treating only young (average 23) service members and young family members. This means it is imperative to maintain a strong, vibrant, capable direct care system.

CURRENT

The direct care system coupled with TRICARE Prime, Extra and Standard along with Medicare Subvention and increased cooperation between DOD and DVA should result in adequate care for all eligible beneficiaries. Unfortunately, military personnel are increasingly being disenfranchised and DOD has not yet developed a plan that will provide an adequate health care option for all DOD beneficiaries. In addition, the TRICARE system is flawed. Some of the problems and recommendations for solving them follow:

A DOD study found that TRICARE administrative costs are far too high. Each Managed Care support contract proposal costs millions of dollars, each winner can expect a protest from the losers costing more millions. More money is being spent on medical administration and less on the patient. We believe this committee should direct a review of alternative means of procuring private sector healthcare to supplement the Military healthcare system. Pending that review, current contracts in the Western regions which will soon require recompeting should be extended. The extension would provide badly needed program stability before starting another round of contracting.

While we support expanding TRICARE Prime beyond catchment areas, some areas are too sparsely populated to create networks. If the TRICARE Standard benefit were adequate, beneficiaries in those areas could still be served. However, the CHAMPUS Maximum Allowance Charge (CMAC) is too low. The CMAC should be linked to the service benefit plan of the Federal Employees Benefits Program plan benefit as Congress originally directed, rather than the Medicare rate. DOD has also reduced the value of TRICARE Standard/CHAMPUS when it is used as second payer to other insurance. When CHAMPUS/TRICARE Standard is used as a second payer it is based on "benefits-less-benefits" rather than a "coordination of benefits" basis. As a result beneficiaries usually receive no benefits from CHAMPUS as second payer. The coordination of benefits method should be restored and legislative provisions put in place to keep it.

The TRICARE Point of Service (P.O.S.) option for enrollees in the Prime program is too expensive at \$300/\$600 deductibles and 50 percent copay. The P.O.S. option should be changed to the TRICARE Standard rate, \$150/\$300 and 25 percent copay. We have seen no evidence of abuse of the P.O.S. option and believe that the standard deductible and copays are enough to prevent frivolous use. Further, there should be no requirement to obtain advance authorization to use the P.O.S. option.

The VA is a TRICARE subcontractor in some regions. Currently, copays are the same whether beneficiaries use the VA or civilian providers. Military personnel believe that VA hospitals/clinics should be given the same status as MTF's for TRICARE purposes and that copays be waived if beneficiaries obtain their care at VA hospitals and clinics.

MEDICARE REIMBURSEMENT (SUBVENTION)

We welcome the Medicare reimbursement demonstration project which is authorized at six sites in 10 locations. We hope that the program can be rapidly expanded to serve more beneficiaries at more sites and full implementation expedited. According to the GAO (GAO/T/HEH5-97-84 Feb 97) no more than 75,000 of the 1.2 million Medicare eligible beneficiaries can be accommodated by military treatment facilities even after the program is fully expanded throughout the United States. DOD expects to care for additional Medicare eligibles in the TRICARE Networks; however, it is clear that all Medicare eligibles will not be served and that another option is needed. We will address this issue later.

MEDICARE SUBVENTION PPO OPTION

Last year Medicare reform legislation also provided for the first time for a Medicare Preferred Provider Option demonstration project. Unfortunately, the DOD/Medicare Subvention agreement allows only a test of an HMO option which DOD plans to do through the TRICARE Seniors program. We believe the PPO Option should be added to the DOD/Medicare demonstration project. This has the potential for the biggest benefit to DOD and the largest savings to the Medicare Program. It would be a more acceptable option to retirees than the TRICARE Partners or Affinity program that will be part of the Subvention demonstration.

FEHBP OPTION

DOD has not yet submitted a plan that would provide a health care option for all military beneficiaries. Furthermore, when they do so we expect it to be in the form of demonstrations, tests and phases that will take three or more years to fully implement. It will probably be 10 to 12 months after legislation is enacted before the first military retiree is enrolled in the Medicare subvention test, and as pointed out earlier even when fully implemented in 3 years or so, very few retirees will have access. We need an option that can be implemented next year. We believe that the best, most cost effective option is authorizing retirees to participate in the Federal Employees Health Benefits Program (FEHBP). With this Committee taking the lead, retirees could begin receiving care in the FEHB Program in 1999. Several bills have been introduced during this Congress to deal with this issue. Senators Strom Thurmond, Paul Coverdell and Lauch Faircloth have introduced S. 1963, which would provide the Federal Employees Health Benefits Program beginning next year. Costs are controlled by capping the program at \$100 million for fiscal year 1999 and increasing by \$100 million per year until it reaches \$500 million in 2003. At about that time some DOD demonstration programs should begin to open up for participation and military FEHBP participants would have the option of leaving FEHBP for one of the DOD programs. Our estimates indicate that some 30 percent of retirees would select the FEHBP option. The death rate of older military retirees, especially those of WWII and Korea is close to 3,000 per month. They need access to health care now, not five to seven years from now when it would be too late. Now is the time to act. We must not continue to allow the decline in availability of medical care to disenfranchise military retirees and their families.

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

The Alliance thanks this committee for its strong support for providing necessary funding for the continued operations of the Uniformed Services University of the Health Sciences. Study after study has shown that when all factors are considered USUHS is more cost effective than the U.S. Health Profession Scholarship Program. We urge you to continue your support for this school which is a national resource.

RETIREE DENTAL PROGRAM

The unsubsidized Retiree Dental Program which recently began enrolling retirees has already signed up over 100,000 military families. The program should be reviewed as we obtain experience this year to determine what adjustments in benefits should be made to meet the needs of beneficiaries and remain cost effective to them.

UNIFORMED SERVICES FAMILY HEALTH PLAN (USFHP)

The nine Uniformed Services Treatment Facilities continue to treat military beneficiaries through their USFHP which is a very popular program. They use the same fee structure as TRICARE providers. The Facilities offer the only DOD sponsored program that is keeping the military healthcare promise by guaranteeing care to Medicare eligible military beneficiaries fortunate enough to live near them and obtain care there. We thank this committee for its support for the UTF's in the past and urge you to continue to support their operation.

CLOSING

Mr. Chairman, the National Military Veterans Alliance thanks you and this subcommittee for holding this hearing and we urge immediate action to enact FEHBP legislation now, so that military beneficiaries can begin enrolling and receiving care in fiscal year 1999.

**STATEMENT OF JAMES M. CROWLEY, PH.D., EXECUTIVE DIRECTOR,
SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS, ON BE-
HALF OF THE JOINT POLICY BOARD FOR MATHEMATICS**

Senator INOUE. Our next witness is Dr. James Crowley, Executive Director of the Society for Industrial and Applied Mathematics, Joint Policy Board for Mathematics.

Dr. CROWLEY. Thank you, Senator Inouye, for the opportunity to comment on the fiscal year 1999 appropriations for the Department of Defense.

Today, I would like to address DOD's investment in basic research, or 6.1 research as it is known to DOD. As I noted in my written statement, I worked for DOD in various scientific capacities for 22 years, so I am very familiar with the importance of basic research to the defense mission. I have seen firsthand how the results of basic research are incorporated into defense technologies and systems for the ultimate benefit of our defense forces, the American taxpayers, and our national security.

I am very concerned, Senator, that the buying power of DOD's support for basic research has dropped dramatically in recent years—by 18 percent since 1994. And I included a chart in my written statement that shows this.

Moreover, these funding levels are well below historical levels of investment in defense basic research. Those past investments played a critical role in enabling today's DOD to meet the Nation's defense needs through superior and cost-effective military technologies.

The reduced budgets have had a staggering effect on the DOD research agencies' ability to maintain the strength of their programs. For example, in the mathematical and computational sciences, the scope of promising research that DOD has identified as relevant to its mission has been curtailed, and whole thrusts of research have had to have been eliminated in some programs. The opportunities lost are not insignificant.

The funding erosion in DOD's basic research programs must be stemmed if we are going to achieve our national security objectives in the future. We urge the subcommittee to begin restoring the buying power of defense basic research by fully funding DOD's request for basic research. We must start reversing the downward funding trend. And enacting the relatively modest proposed increase for fiscal year 1999 would be a crucial first step.

Let me say a few words about what basic research means to DOD. You are no doubt aware of the importance of long-term fun-

damental research. I would also point out that some of the research supported through the 6.1 account is not as long term as you might think. In many cases, university researchers have been brought in for special expertise to help resolve real-time scientific and technical challenges.

And this raises a critical point: by engaging the Nation's research universities in defense-related problems, DOD ensures itself access not only to today's researchers and the latest discoveries, but also to graduate students, whose involvement in defense-related research helps guarantee the production of mathematicians, scientists and engineers who can contribute to meeting defense needs in the future, to tackling long-term research problems and being able for DOD to call on more immediate ones.

I have given several examples in the testimony, and time will not permit me to go through all of them. I have given just a few from one area of research in the written statement, but there are countless others from all areas of science and engineering which show the critical nature of research to improvement and cost-effective technology for national defense.

I appreciate the opportunity to talk to you, and I hope you will remember the critical importance, but sometimes hidden impact, of basic research on defense capacities.

Thank you, Senator, and I am glad to answer any questions you might have.

Senator INOUE. Dr. Crowley, I thank you very much. We have one problem. It is easy to sell applied research, because most people can see the end product. You should help us sell basic research. If you have any ideas on how we can convince our colleagues, please share it with us.

PREPARED STATEMENT

Dr. CROWLEY. I would be happy to do that.

I think the basic research that is supported by the DOD agencies is different from, in some ways, basic research in other areas, in that as mission agencies, the areas chosen for basic research are those that do have an impact on DOD needs. And so I think it is important to maintain the basic research because it will feed into technologies in the future.

Senator INOUE. Thank you very much, sir.

Dr. CROWLEY. Thank you, Senator.

[The statement follows:]

PREPARED STATEMENT OF JAMES M. CROWLEY

Good afternoon, Mr. Chairman and Members of the Subcommittee. Thank you very much for this opportunity to comment on fiscal year 1999 appropriations for the Department of Defense. I am James Crowley, Executive Director of the Society for Industrial and Applied Mathematics (SIAM) in Philadelphia. I speak on behalf of the Joint Policy Board for Mathematics (JPBM), which is a collaboration of three professional societies, including SIAM, the American Mathematical Society, and the Mathematical Association of America. These organizations have a combined membership of over 57,000 mathematical scientists and educators whose concerns encompass fundamental and interdisciplinary research in mathematics; the applications of mathematics to science, engineering, industry, and business; and mathematics education at all levels.

Today I would like to address DOD's investment in basic research, also known in DOD budgetary parlance as 6.1 research. Let me start by noting that from 1988

to 1994, while I was an officer in the Air Force, I served as the Director of the Mathematical and Information Sciences Directorate at the Air Force Office of Scientific Research (AFOSR), then as Assistant Chief Scientist at the Air Force Systems Command at Andrews AFB, and then as Manager of the Applied and Computational Mathematics Program at the Defense Advanced Research Projects Agency (DARPA), so I'm very familiar with the importance of basic research to the defense mission. I've seen first-hand how the results of basic research are incorporated into defense technologies and systems for the ultimate benefit of our defense forces, American taxpayers, and our national security. Furthermore, DOD's 6.1 activities are an essential component of maintaining the United States' world leadership in mathematics, science, and engineering research.

The buying power of DOD's support for basic research has dropped dramatically in recent years—by 18 percent since fiscal year 1994, as you can see from the chart I've included below. Moreover, these funding levels are well below historical levels of investment in defense basic research. Those past investments played a critical role in enabling today's DOD to meet the Nation's defense needs through superior and cost-effective military technologies.

DOD SUPPORT FOR BASIC RESEARCH (6.1)

[In millions; constant dollars determined using OMB's latest GDP deflator]

	Fiscal year—					
	1994	1995	1996	1997	1998 estimate	1999 request
Current dollars	\$1,167	\$1,227	\$1,099	\$1,032	\$1,042	\$1,111
Constant 1992 dollars	1,111	1,138	997	958	907	948

The main point I would like to make today, Mr. Chairman, is that the funding erosion in DOD's basic research programs must be stemmed if we're going to achieve our national security objectives into the future. We urge the subcommittee to begin restoring the buying power of defense basic research by providing DOD's request of \$1.11 billion for the 6.1 account in fiscal year 1999. You will note from my chart above that the requested amount does not even bring funding up to the constant dollar value of last year's basic research budget. But we must start reversing the downward funding trend, and enacting the relatively modest proposed increase for fiscal year 1999 would be a crucial first step.

Let me say a few words about what basic research means to the DOD. First of all, maintaining a robust long-term basic research program is essential to ongoing efforts to develop new technologies, improve existing ones, and employ them as effectively as possible in the service of national security.

Secondly, some of the research supported through the 6.1 account is not as long-term as you might think. In many cases—and I'm thinking just of cases involving the mathematical sciences, which I know best, but this is no doubt true for other areas as well—university researchers have been brought in for special expertise to help solve real-time scientific and technical challenges faced by military personnel, the defense laboratories, or DOD contractors.

And this leads me to perhaps the most critical point here. By engaging the Nation's research universities in defense-related problems, DOD ensures itself access to top researchers and the latest discoveries in pursuit of its R&D objectives. Not just today's researchers but the next generation as well. The support DOD provides for graduate students in defense-related research areas helps guarantee the production of mathematicians, scientists, and engineers who can contribute to meeting defense needs in the future.

I would again refer to my first-hand knowledge of how valuable it is for DOD to maintain a productive relationship with universities for the reasons I've cited. At DARPA especially it is a specific goal to seek out academic researchers who can help solve defense-related problems and link them up with their counterparts in DOD laboratories and in industry to tackle both short- and long-term problems.

The defense agencies that sponsor basic research—the Army Research Office (ARO) and the Office of Naval Research (ONR), as well as AFOSR and DARPA—have an excellent track record for making decisions about which areas are vital to DOD's technology goals and which researchers are best able to mine the scientific opportunities for contributions to national security. Rigorous internal decision-making processes guide these investments to ensure both scientific excellence and consistency with DOD's strategic priorities.

The spending cuts in basic research have had a staggering effect on these agencies' ability to maintain the strength of their programs. In the mathematical and computational sciences, the scope of promising research that DOD has identified as relevant to its mission has been curtailed and whole thrusts of research have had to be eliminated in some programs. The opportunities lost are not insignificant.

I'll mention the impact on another agency that is especially relevant to the mathematical sciences—the National Security Agency. The NSA is the Nation's largest employer of mathematical scientists, and of course its in-house research activities are highly classified. In 1984, NSA initiated a competitive grants program to support unclassified academic research in several mathematical fields, including cryptography, which, I'm sure you know, is important in the making and breaking of codes. The establishment of the program was a response to a sharp decline in the number of Americans earning advanced degrees in the mathematical sciences. Although that number has stabilized, U.S. citizens still earn less than half of the mathematical doctorates awarded by U.S. institutions. Yet the purchasing power of NSA's external grants program has been dropping steadily during the 1990's; its budget will have declined by 50 percent in real terms between fiscal year 1990 and fiscal year 1998.

Finally let me illustrate my remarks about DOD's investment in basic research and its contributions to the national defense with some examples. You are no doubt familiar with how quickly advances in computer hardware are developed and incorporated into the state-of-the-art—computer speed doubles every one and a half years, for example. Less well known but equally important is the fact that new and improved mathematical algorithms, which are the basis of all computer software, also contribute to this remarkable trend. In fact, the fanciest computer hardware would be useless without equally sophisticated advances in mathematical modeling and algorithm development. Let me cite a couple of cases in which DOD support has facilitated breakthroughs in this area:

- Research during the past 25 years has led to the development of mathematical techniques underlying computer programs that can easily manipulate geometric objects. The techniques are now embedded in a wide range of applications, including the high-performance computers used in aircraft design and other modern CAD/CAM packages that make rapid prototyping and computer-aided design possible. One unexpected use of these techniques is in film animation, as demonstrated in the widely popular movie, "Toy Story". But these same tools are being used by defense contractors to cut the development time and cost for new aircraft and other major DOD purchases.
- Mathematics can be used to model, or predict, how radar waves behave when scattered off of surfaces such as aircraft bodies. But the resulting equations are complicated, and getting computers to solve them is not a straightforward process. Advances in the development of computational algorithms that can solve these equations are enabling the design and testing of stealth technology in simulation—that is, on computers—before any actual fabrication begins. The modeling of radar-wave scattering continues to be a challenging mathematical and computational problem, and we are just starting to see how powerful the resulting tools can be.

The potential impact of mathematical modeling and computational simulation on meeting the needs of DOD expands with advances in computers and in mathematics itself. For example, a recent DOD initiative in modeling, simulation, and control of fabrication processes for thin films promises to deliver new, more reliable and economical processing techniques for critical thin films. Thin films of semiconductor material have many uses in electronic components. Thin films of super-conducting material could lead to compact, high performance microwave filters for wireless and aerospace communications. But thin films are not easy to manufacture. Small variations in the composition or shape of the material can render a component useless. Getting machines to process thin films smoothly, evenly, and without variations at the microscopic level is a challenge that is being addressed with the application of mathematics. The strict requirements can be met with intelligent manufacturing using predictive computer models and model-based control of the manufacturing processes. To achieve this will require considerable research in mathematical techniques, including mathematical modeling and development of new numerical methods.

I hope these examples demonstrate how basic research is an essential component of the defense enterprise. This concludes my testimony today. I truly appreciate this opportunity to talk to you about the impact of defense basic research. Again, thank you, Mr. Chairman. I'm pleased to answer any questions you might have.

STATEMENT OF DAVID A. WHISTON, D.D.S., PRESIDENT, AMERICAN DENTAL ASSOCIATION

Senator INOUE. Our next witness is Dr. David A. Whiston, President, American Dental Association.

Welcome, Dr. Whiston.

Dr. WHISTON. Thank you very much, Senator Inouye. It is a pleasure to be here.

As you mentioned, my name is Dave Whiston. I am President of the American Dental Association [ADA]. I practice dentistry across the river, in Arlington, Virginia. I appreciate the opportunity to be here.

I would like to talk just briefly about two specific items. One is the flexibility of being able to offer multi-year contracts to military dental officers. And the second is the unique quality of military dental research.

I want to thank you, first, though, Senator, and the subcommittee, for the great support you have given us over the past several years relative to pay parity issues—specifically, special pay issues and the accession bonuses. That was a great start on the recruitment side of the equation, where we have had some problems. Now we would like to address the retention side of the issue. We are having great problems with retention of Federal dental officers.

In fact, now we are short in access of 300 offices. The projection over the next several years by DOD is that the shortage will double. And what we are seeing now is that after 10 years, we are only seeing a retention rate of 26 percent. After 20 years, it is only 13 percent. And DOD's most conservative estimates indicate it should be at least 3 times that 13 percent level.

It used to be, in 1982, the average Federal dental officer would remain in the service 11.8 years. Less than 15 years later, in 1996, they only stay in about 7 years. So there are some real problems, some real shortages that we see, much of it related to income, comparable income of Federal officers versus private practitioners.

But the net effect is that of active duty personnel, one of seven are non-deployable for dental reasons. One of seven active duty personnel are non-deployable because of dental problems. What we would like to see, to impact this side of the equation, is at least the flexibility to be able to offer multi-year contracts, preferably 4-year contracts, to Federal officers, so that we could impact the retention side of the equation.

We respectfully request an \$8.6 million addition to the fiscal year 1999 budget, to be able to offer these multi-year contracts.

On the dental research side—and just to briefly characterize that—military dental research is dental research that is not duplicated anywhere in the private sector. We are talking about dental research aimed at specific dental field equipment, research aimed at developing materials which are not environmentally sensitive, and which would impact the statistic now, which is a pretty glaring one, which is that 16 percent of all active duty personnel, 16 percent each year, must be evacuated for dental reasons.

PREPARED STATEMENT

So, we realize you have great demands, specific demands, in the defense budget for critical defense dollars, and we understand that,

but in order to address the recruitment and retention side of the equation and the preparedness side, relative to evacuations, we respectfully request your consideration of the \$8.6 million relative to the flexibility of offering multi-year contracts, and \$4 million in fiscal year 1999 for the purposes of specific military dental research, again, to impact on that non-deployability side of the equation as well as the evacuation side of the equation.

Thank you very much, Senator, for the opportunity to be here today.

[The statement follows:]

PREPARED STATEMENT OF DAVID A. WHISTON

On behalf of the American Dental Association (ADA), thank you Mr. Chairman for the opportunity to testify on the fiscal year 1999 Department of Defense (DOD) appropriations. I am Dr. David A. Whiston, the President of the ADA and a practicing dentist in Arlington, Virginia.

The ADA is a professional organization that represents approximately 143,000 licensed dentists (75 percent of the profession) in the United States. The ADA seeks to advance the art and science of dentistry, and to promote high-quality dental care and the oral health of the public.

Over the years the ADA has maintained a close liaison with the federal dental services which include all three Service branches, the Public Health Service, and the Veterans Administration. The Association is proud to represent the needs of our nation's federal dental officers.

Mr. Chairman, I am here today to address two areas of concern for military dentistry: dental corps officer multi-year contracts, and military dental research funding.

Dental Corps Officer Multi-Year Contracts

I commend this committee for the support it has provided federal dental officers. As you know, in the past two years the Congress has approved special pay raises and an accession bonus to alleviate severe recruiting and retention problems that exist in the Army, Navy, and Air Force dental corps, as well as the Public Health Service.

Retention of military dental officers is a readiness concern for the Services. A 1997 study by the Office of the Assistant Secretary of Defense (Health Affairs) shows that retention is decreasing for every year group of dental officer. The aggregate retention has declined to 26 percent at ten years of service and 13 percent at 20 years. The ideal force profile calls for 40-50 percent retention at 10 years and 30-35 percent retention at 20 years.

In 1982, a military dentist served an average of 11.8 years. In 1996, the expected length of service slumped to 7.4 years. The high turnover rate contributes directly to a shortage of dental officers and causes turbulence in force management. Currently the Services' Dental Corps are short approximately 300 officers from the DOD authorized level. The study projects that this shortfall will grow dramatically to between 400 and 700 dentists in the next few years if nothing is done.

Maintaining the authorized number of military dentists, particularly experienced personnel, ensures dental readiness of America's Armed Forces. The 1994 Tri-Service Comprehensive Oral Health Survey found 92 percent of military personnel required some form of dental care. An average of one out of seven active duty service members at the end of fiscal year 1996 were determined to be non-deployable due to dental problems. A recent symposium at Fort Hood, Texas, identified the lack of access to routine dental care as the number one health concern of soldiers.

If declining rates of retention continue, it will lead to shortfalls in the availability of active duty dentists for deployment. This would impact directly on the provision of dental care for troops in garrison operations, conflict situations, and peacekeeping missions.

The primary causes for retention problems are the lack of pay comparability with the private sector. In 1982, a military dentist earned approximately 82 percent of the reported income of private sector dentists. By 1996, that percent had dropped to 51 percent. This large pay gap exists throughout the career span of a military dentist.

The 1997 Defense Authorization Act and Defense Appropriations Act provided funds to increase dental officer special pay for junior grade dental officers with less than 10 years of service. That legislation also provided for an accession bonus of

\$30,000 for new dental officers. While it is too early to ascertain the full impact of the increase and the bonus, preliminary evidence suggests the accession bonus will improve recruitment in the coming years.

The 1998 Defense Authorization Act increased special pay rates for mid-career officers and provided for the use of multi-year contracts similar to those used for physicians as a retention and force management tool. Although no funds were provided for these two pay proposals, their passage provides the three Services (and the Public Health Service) a valuable tool to improve recruiting and retention problems.

Mr. Chairman, the use of multi-year contracts for critical specialists will help the Services to obligate dentists for up to four years. Experience with the Medical Corps has demonstrated the success of these contracts. The Services need an additional \$8.6 million in fiscal year 1999 in the military pay appropriations account (Army: \$2.3 million; Navy \$1.6 million; and Air Force \$4.4 million) to offer these multi-year contracts to its oral surgeons, orthodontists, periodontists, and endodontists.

Military Dental Research

The mission of military dental research is to maximize and maintain operational readiness. This is accomplished by performing research and development to improve both preventive and interceptive care prior to deployment and forward dental care and management of maxillofacial injuries.

Army and Navy dental research programs conduct basic and applied research and development to produce products for use in military environments that are not duplicated by civilian research and development efforts. The U.S. military dental research laboratories, the U.S. Army Dental Research Detachment (USADRD) and the Naval Dental Research Institute (NDRI), are located at the Great Lakes Naval Training Center, Illinois. They focus on R&D of new technologies that reduce lost duty time caused by dental disease or trauma in military populations.

Areas of research emphasis include: epidemiology of dental disease and trauma, rapid diagnostic aids, new preventive technologies, improved dental field equipment (smaller, lighter, and lessened power requirements), dental materials that are insensitive to operational environments, and technologies to reduce the morbidity and mortality of oral and maxillofacial trauma.

Mr. Chairman, on an annual basis 16 percent of deployed personnel experience a dental emergency requiring evacuation from their military unit, and 1 percent sustain oral and maxillofacial trauma. Studies have shown that the annual dental emergency rate during the Vietnam War was 157 dental emergencies per 1,000 soldiers. During Operation Desert Shield/Desert Storm the annual rate of dental emergencies was 100 per 1,000 Marines ashore. A recent RAND study (Army Medical Support for Peace Operations and Humanitarian Assistance (1996)) reported that military dentists were some of the busiest of all providers in recent humanitarian missions. As much as 20 percent of all outpatient visits were for dental care.

These emergency rates occur in every deployment and operational environment and are unacceptable to line commanders. As you know, deployed personnel with severe oral pain and/or infection cannot perform military duties and may require evacuation to receive appropriate dental treatment. Evacuation from remote and isolated sites can be costly to the military and degrade operational readiness. The need for dental research and development to address dental readiness is therefore paramount.

Unfortunately, the military biomedical R&D community undervalues this impact, as evidenced by disproportionate reductions in dental R&D funding and personnel authorizations. Army dental research funding decreased from \$3.6 million in 1991 to \$0.865 million in 1997. Program funding ceased in fiscal year 1998 and \$677,000 had to be allocated from other medical research programs to support on-going dental research. This represents an 82 percent funding reduction since 1991. The Army laboratory has also experienced a 45 percent reduction in authorized personnel since 1991.

Navy dental research funding has faced similar reductions—from a high of \$2.2 million in 1994 to \$1.1 million in 1998. This represents a 50 percent reduction in just four years. Since 1992, Navy dental research has also experienced a 33 percent reduction in authorized personnel (from 57 to 38). These funding and personnel levels are absolutely inadequate to accomplish the mission of military dental research.

Mr. Chairman, let me tell you of just a few of the significant dental research projects that Army and Navy dental researchers are working on.

- Dental field equipment is being developed to reduce the size, weight, and electrical requirements of the deployed dentist while increasing treatment capability. Research projects include fabricating and testing of an electric handpiece dental field operating and treatment system, construction and testing of a portable solar panel to recharge the battery for a dental handpiece located in the

- Dental Emergency Field Set, and evaluation of radiographic images captured on a digital sensor and displayed on a laptop screen.
- Field expedient dental materials are being developed that are less sensitive to degradation during storage due to environmental factors such as heat, cold, and humidity.
- Single-dose, controlled release analgesics, antibiotics and vaccines for use in deployed environments and to accelerate the return to duty of battlefield casualties are being developed.
- Gum or powder that prevents plaque buildup and thereby reduces dental disease for deployed troops who are not able to perform proper oral hygiene is also being developed.
- Research projects related to determining the rates of dental emergencies and dental trauma during deployment and determining the rates of oral and maxillofacial trauma in personnel serving in airborne and armor units are ongoing.
- A new smokeless tobacco cessation program has been developed and will evaluate the impact on readiness.

Mr. Chairman, dental emergencies and trauma significantly impair operational readiness and sustainability. Increased dental research funding is needed to improve preventive and interceptive dental care prior to deployment, to improve forward support dental care, and management of oral and maxillofacial injuries. The Army and Navy needs \$4 million in fiscal year 1999 (\$2 million for the Army Dental Research Detachment and \$2 million for the Naval Dental Research Institute), which is \$2 million above fiscal year 1998 appropriated amounts, to continue these valuable dental research programs.

Conclusion

The ADA recognizes the multitude of funding priorities Congress must reconcile, but believes that the requirements spelled out in this statement are urgently needed to maintain the oral health and readiness of military personnel. Funding for multi-year contracts will help insure a stable dental corps, improve recruiting and retention, and better balance pay inequities. Improved funding for dental research will help decrease dental emergencies and trauma significantly with the resultant improvement in operational readiness and sustainability. The Association respectfully requests that this subcommittee support the program enhancements discussed above.

Senator INOUE. Doctor, where did you get those statistics on one out of seven are non-deployable?

Dr. WHISTON. One out of seven non-deployable is a statistic that I was given at the American Dental Association. My understanding is that it is from DOD. But I can get you the numbers on that.

Senator INOUE. I am certain the committee would appreciate that.

[The information follows:]

LETTER FROM DAVID A. WHISTON

MAY 20, 1998.

The Honorable DANIEL K. INOUE,
Ranking Member, Senate Appropriations Committee, United States Senate, Washington, DC.

DEAR SENATOR INOUE: Thank you for the opportunity to appear before the Defense Subcommittee to highlight the need for appropriations for multi-year contracts for dental corps officers and increased funding for military dental research. Funding for these programs is important for the future of military dentistry and, more importantly, the readiness of our active duty forces.

You asked for the precise source of two statistics quoted in my statement. The following are those cites:

- “An average of one out of seven active duty service members were determined to be non-deployable due to dental problems.” (Office of Secretary of Defense for Health Affairs Study, 1997); and
- “Studies have shown that 92 percent of military personnel require some form of dental care.” (1994 Tri-Service Comprehensive Oral Health Survey).

I greatly appreciate your interest and offer to work with the American Dental Association to improve the oral health care of our troops. Toward that end, our ADA Washington Office staff will contact your staff for appropriate follow-up.

Thank you very much.
Sincerely,

DAVID A. WHISTON, D.D.S.,
President.

Senator INOUE. I did not realize it was that bad.

Dr. WHISTON. Yes, it is significant. It really is. Ninety-two percent, Senator, of all active personnel have dental needs. And those can be addressed. But the ability to address those needs is decreasing as the retention problem increases. So we could see an increase to that one of seven.

Senator INOUE. Ninety-two percent require dental care?

Dr. WHISTON. Yes, 92 percent, of some type.

Senator INOUE. They are not watching the TV Crest ads?

Dr. WHISTON. Right. You are right. [Laughter.]

Yes. They have not listened to some of your suggestions over the years, Senator.

Senator INOUE. We would like to work with you to see how we can help in reducing these numbers.

Dr. WHISTON. Thank you very much.

Senator INOUE. These are terrible.

Thank you very much.

Dr. WHISTON. Thanks for the opportunity, Senator.

STATEMENT OF JEAN LOU CHAMEAU, DEAN OF ENGINEERING, GEORGIA INSTITUTE OF TECHNOLOGY, ON BEHALF OF THE ASSOCIATION OF AMERICAN UNIVERSITIES

Senator INOUE. Our next witness is Dr. Jean Lou Chameau, Dean of Engineering, Georgia Institute of Technology.

Dr. Chameau.

Dr. CHAMEAU. Senator, members of the committee, my name is Jean Lou Chameau, and I am the Dean of Engineering at Georgia Tech, in Atlanta. Georgia Tech is the largest engineering school in the country, graduating more than 2,000 engineers every year.

I am testifying on behalf of the Association of American Universities, AAU, representing 62 research universities in the country; and the National Association of State Universities and Land-Grant Colleges, representing almost 200 public universities in the country.

You have copies of my written testimony, which I will briefly summarize. I think it is more than fair to say that the technologies critical to winning the Cold War and America's successful campaign during Desert Storm owe their allegiance to university-based defense research. There are many examples, including semiconductors, phased-array radar for intercontinental ballistic missile defense, laser guidance systems, stealth design, and so on.

These technologies make a difference for people in the field. A very good example was given when the global positioning system, or GPS, saved the life of Air Force Captain Scott O'Grady, after his F-16 was shot down over Bosnia.

In my University, Georgia Tech, we conduct a significant amount of research that contributes to the defense mission. For example, Tech engineers are using acoustic-electromagnetic waves in new ways to detect both metallic and nonmetallic land mines. We are also developing what is called a smart T-shirt. It is basically a T-shirt with optical fibers, very cost efficient, about \$25 to \$30 to

produce. And we provide medical personnel the ability to monitor a soldier's condition, including vital signs.

University research also helps address emerging security issues such as terrorism, biological and chemical agents, and cybersecurity. There are many areas in the areas of telecommunications, miniaturization and other technologies. The DOD funding of university research concentrates in fields where advances are most likely to contribute to national defense and also to the mission.

The DOD accounts for 60 percent of the Federal funding to electrical engineering, 55 percent for computer engineering and sciences, 41 percent for materials research. The DOD contribution to educating the next generation of engineers and scientists should not be underestimated. The DOD supports 45 percent of federally funded graduate students in electrical engineering, 25 percent in mathematics, 48 percent in aerospace engineering. Our students get research training and become highly qualified scientists and engineers of the future, who are going to work at academia, industry, DOD, and Federal laboratories.

The Department's budget for fiscal year 1999 provides a total of \$1.1 billion for defense in 6.1 basic research. This represents about a 6.6 percent increase over last year. Similarly, there is an expected \$3 billion budget for applied research, an increase of about 0.8 percent. We believe these budget projections will lead to a realistic and appropriate estimate of what will be needed to carry out a strong research program.

PREPARED STATEMENT

Finally, DOD basic research funding has been used several times in the last few years to provide offsets for unrelated new expenditures. And we hope your subcommittee will not use it this year for this purpose.

Thank you very much.
[The statement follows:]

PREPARED STATEMENT OF JEAN LOU CHAMEAU

Mr. Chairman and members of the subcommittee: Thank you for the opportunity to testify today. My name is Jean Lou Chameau, and I am Dean of Engineering at the Georgia Institute of Technology. Georgia Tech is the largest engineering school in the country, graduating annually in excess of 2,000 engineers. I am testifying on behalf of the Association of American Universities, representing 62 premier research universities in the United States and Canada, and the National Association of State Universities and Land-Grant Colleges, representing 195 public institutions of higher education across the United States.

My purpose this morning is to talk about the scientific and technological breakthroughs that have resulted from university research supported by the Department of Defense (DOD). I will emphasize how important these breakthroughs are to our national security and readiness for future military conflicts. I will also talk about the importance of DOD Basic and Applied Research to key academic disciplines; to fundamental discoveries in science, engineering and mathematics; and to the training of the next generation of scientists and engineers. Finally, I will briefly review the recent history of funding reductions in these programs, and I will urge that these programs not receive additional cuts, either to offset supplemental fiscal year 1998 appropriations, or in the regular fiscal year 1999 appropriations process.

As you know, Basic and Applied Research are funded under program elements 6.1 and 6.2 in the Research, Development, Testing and Evaluation section of the Department of Defense appropriation. The Army, Navy, Air Force and the "Defense-wide" account under the Office of the Secretary all receive separate appropriations for these programs. Universities play the largest role in basic defense research, re-

ceiving more than 60 percent of this funding (program element 6.1). They also receive substantial funding for applied defense research and advanced technology development (program elements 6.2 and 6.3, respectively).

BREAKTHROUGHS FROM DOD-FUNDED UNIVERSITY RESEARCH

Many crucial defense technologies have emerged from fundamental research conducted on university campuses. Among these are: radar, nuclear power, digital computers, semiconductor electronics, lasers, fiber optics, night vision, vaccines and drugs for malaria and other tropical diseases, inertial guidance, the Global Positioning System, stealth and other advanced materials, computer networking (ARPANet, forerunner of the Internet), and computer-based visualization systems for training and for planning and conducting operations.

As just one example, the remarkable usefulness of the Global Positioning System (GPS) was dramatized by the rescue of the Air Force Captain Scott O'Grady after his F-16 was shot down over Bosnia in June 1995. The portable GPS receiver in his life vest allowed rescue helicopters to land at his hidden position and rescue him in a few minutes despite hostile troops nearby. One of the key technologies that makes GPS possible, the ultra-precise atomic clock, was created in the 1950's by university researchers intent on studying Einsteinian space-time relativity (advances in satellite technology, miniaturization, and mathematics were also necessary). Atomic clocks improved during the 1960's, and in 1973, DOD decided to develop GPS. The system of 24 satellites needed for GPS was launched between 1989 and 1993.

The Georgia Institute of Technology (GIT), including the Georgia Tech Research Institute (GTRI), received approximately \$84 million in Department of Defense grants and contracts in 1997. These funds involve a full range of activity from basic research through developmental, test and evaluation work. Some of the highlights of this research in the basic science and engineering disciplines at Georgia Tech include the following projects:

Molecular Design Institute

The Office of Naval Research (ONR) supports molecular synthesis and processing research, making it possible to tailor new materials, atom by atom, to achieve a desired set of properties. This molecular manipulation at the atomic level into material nanostructures is fundamental research important for meeting future Navy requirements for sophisticated surface and underwater vessels, weapons and equipment. Georgia Tech is one of two centers in the country currently involved in this advanced research.

Acousto-Electromagnetic Sensor for Locating Land Mines

The Army Research Office currently sponsors basic research at Georgia Tech in the area of land mine detection. The objective of this project is to investigate new, innovative techniques for detecting and locating both metallic and non-metallic land mines. Presently, non-metallic land mines are almost impossible to detect with existing systems. Georgia Tech electrical engineering researchers are now investigating a technique that uses both acoustic and electromagnetic waves in a synergistic manner to detect these mines. Land mine detection is a high priority for DOD and this work should lead to new methodologies for protecting U.S. troops from these deadly devices.

Intelligent Turbine Engines

At Georgia Tech the Army sponsors a five-year program that investigates the use of modern control approaches to improve the performance of gas turbines that are employed in helicopters and tanks. This research program investigates control approaches that will reduce the number of needed compressor stages. In parallel efforts, we are using control approaches to improve the performance of the gas turbine's combustor by reducing the frequency at which the combustion process unexpectedly extinguishes and reducing the volume required for complete combustion. It is expected that the improvements provided by this program will reduce the gas turbine's fuel and improve its reliability.

Conformal Aperture Velocity Sonar/Conformal Active Sonar System

The goal of the CAVES/CACTISS program at Georgia Tech, sponsored by the Office of Naval Research, is to revolutionize submarine SONAR systems and implementation philosophies. The Conformal Aperture Velocity Sonar (CAVES) system consists of a hull mounted, large aperture, broad band receiving SONAR system that will greatly enhance a submarine's ability to make detections in open water and in shallow water environments. The Conformal ACTIVE Sonar System

(CACTISS) is a hull mounted, large aperture, broad band transmitting sonar system that will work in conjunction with CAVES to provide a submarine with the capability to communicate with the battle group, hunt mines, and jam enemy torpedo sonars. Following a successful test of small aperture CAVES and CACTISS arrays in late 1996, preparations are now underway for full aperture CAVES and CACTISS arrays to be tested at quarter-scale at the Navy's Intermediate Scale Measurement System located at Lake Pend Oreille, Idaho in March 1999.

Active Control of Combustion Instabilities in Missiles

The Air Force supports a three-year effort at Georgia Tech to investigate the use of secondary fuel injection to ameliorate unstable combustion processes. Instabilities in missile combustion systems have hindered the development of practically every missile system to date (and many other propulsion systems) and resulted in program delays and cost overruns. By use of a novel fuel injector, developed and patented under this Air Force program, we are demonstrating that using properly timed secondary fuel injection can prevent and/or eliminate these undesirable instabilities, thus preventing future programs delays and cost overruns.

Army Rotorcraft Center of Excellence

The Army is a sponsor of Georgia Tech's Rotorcraft Center of Excellence operated by the School of Aerospace Engineering. This center is the largest of 3 national Centers of Excellence in rotorcraft technology and supports work important to the missions of each of the defense services operating rotorcraft vehicles. The center performs research on aerodynamics, aeroelasticity, dynamics, engines, composite materials, structures, flight mechanics, controls, and put it all together in systems design and engineering education.

BEING PREPARED IN AN UNCERTAIN WORLD

With future threats to national security so uncertain, maintaining technological superiority will require a strong continuing research effort. The armed forces today not only must be ready to fight in conventional regional wars like the Gulf War; they also must be ready to undertake peacekeeping missions in hostile situations and to defend against unconventional threats such as terrorism, biological and chemical agents, and computer sabotage.

DOD-sponsored university research is an important source of new knowledge and innovative solutions to these problems. Incremental adaptations of existing weapons and equipment are not necessarily suitable in the new world situation. University researchers are investigating new approaches to assist likely future missions—for example, small, highly mobile units operating in ambiguous situations far from their bases.

Rapidly developing computer-based information technologies, coupled with advanced sensors, promise to revolutionize warfare. University scientists and engineers are working to exploit the information revolution faster and better than the rest of the world. Research now being conducted on campus into new visual reality and computer visualization technologies will permit future U.S. forces to dominate the situation with superior information and communications. DOD currently provides more than half the federal funding of university research in computer sciences and electrical engineering.

At least 100 million land mines are buried in 62 countries, hindering regional stability and endangering U.S. troops on peacekeeping missions. DOD supports university research into novel approaches, such as using new combinations of sensors and nonlinear signal processing techniques to improve detection of land mines, and using advanced acoustics and neural network signal processing techniques to locate mines under sediment in shallow water.

INVESTING IN AMERICAN SCIENCE AND TECHNOLOGY

Supporting university research benefits DOD in many ways. It produces important advances in knowledge. It helps keep top scientists and engineers involved in defense research. Not least, the students who get hands-on research training become the highly qualified scientists and engineers of the future who go on to work in academia, industry, and federal laboratories.

DOD is the third largest federal funder of university research (after the National Institutes of Health and the National Science Foundation). The funds are awarded under competitive merit review procedures to assure high quality. Nearly 350 universities and colleges sponsor DOD research and development.

Unfortunately, last year, the science and technology budget at DOD hit a 35-year low, after adjusting for inflation. Basic research is down by \$350 million in just the last five years. I am concerned that the scientific and engineering communities will

find resources drying up for promising areas of inquiry. In particular, I am concerned about the effect that shrinking funding will have on those disciplines that are most heavily funded by the Department, since other sources may not easily be found to keep these disciplines healthy.

DOD's funding of university research is concentrated in fields where advances are most likely to contribute to national defense. As a result, DOD accounts for 60 percent of the federal funding for electrical engineering, 55 percent for computer engineering and sciences, 41 percent for metallurgy/materials engineering, and 33 percent for oceanography.

DOD also supports a high percentage of graduate students in relevant field—45 percent of federally funded graduate students in computer engineering and sciences, 25 percent of those in mathematics, 48 percent in aerospace engineering, 42 percent in electrical engineering, and 30 percent in metallurgy/materials engineering. These graduate students go on to meet America's need for a trained and scientifically literate workforce, whether in the military, the government, in defense and civilian industry, or in academia.

The Department's budget request would provide a total of \$1.11 billion for Defense 6.1 (basic research) programs in fiscal year 1999, including programs funded under the Office of the Secretary of Defense, as well as Navy, Army, and Air Force research programs. This represents an increase of 6.6 percent over the final funding level for fiscal year 1998. According to the Department's RDT&E Programs (R-1) report, applied research would receive a total of \$3.02 billion, an increase of 0.8 percent over fiscal year 1998.

I believe these budget projections represent a realistic and appropriate estimate of what will be needed to carry out a vigorous research program in the coming year, and I hope you will approve them in the fiscal year 1999 appropriation.

Finally, I understand that this committee may be called upon to identify offsets for a supplemental appropriation in the near future. DOD basic research funding has been used several times in the last few years to provide offsets for unrelated new expenditures, and I hope your subcommittee will not use it this year for this purpose.

Thank you again for the opportunity to testify, and I would be happy to answer any questions you may have.

Senator INOUE. Thank you very much, Dr. Chameau. I note one of the problems you cite is the 100 million land mines found in 62 countries. Is the Georgia Institute of Technology working on this at this time?

Dr. CHAMEAU. Yes. We have a major program to detect land mines using acoustical and electromagnetic waves.

Senator INOUE. What is the status now?

Dr. CHAMEAU. The status of those programs are that I think there is a very high likelihood that you could have some prototype available within a year.

Senator INOUE. Within a year we should have something that could be used in the field?

Dr. CHAMEAU. Yes.

Senator INOUE. We look forward to that, sir. Thank you very much.

Now may I call upon Chief Master Sergeant Mark Olanoff, United States Air Force Retired, the legislative director of the Retired Enlisted Association.

STATEMENT OF CHIEF MASTER SERGEANT MARK H. OLANOFF, USAF (RET.), LEGISLATIVE DIRECTOR, THE RETIRED ENLISTED ASSOCIATION

Sergeant OLANOFF. Thank you, Senator Inouye. I would like to thank you and Senator Stevens for allowing the Retired Enlisted Association to testify before your subcommittee, and we represent over 100,000 members active reserve and retired and their families, and in my statement I have detailed a lot of the different programs we requested you look at for fiscal year 1999, but I am going to

concentrate on military health care because that is our number 1 concern, but I just wanted to reflect back very quickly to what Mr. Dugan said from the American Legion.

It is very ironic that we have already transferred \$150 billion out of the defense budget and now we have to come to you to lobby to put money back. It is just sad that we have to do that, and maybe next year and some of the future years we can look at some of these programs and try to fund them before we transfer all the money after we close the bases instead of after the fact.

As I said, Senator Inouye, our number 1 priority is health care, and due to the downsizing of DOD budgets, and as well as the impact of the base realignment and closure on military retiree communities, finding access to health care is our number 1 priority.

This trend of military treatment facilities either being downsized in staff or closed due to BRAC creates confusion among retirees that reside in those given areas where to access health care, receive their prescription drugs, and what happened to the promise of the health care that we were told when we decided to make the military a career?

The question is how can we answer these and plan on providing health care for retirees now and in the future? You might recall last year I testified before the committee and stated that providing the Federal employee health plan, which is the same plan that Congress has, and their staff, to military retirees is one part of the overall solution, which is treated as our number one legislative priority.

We appreciate the support of you and the other Members in this room that supported the medicare subvention test program, but as I am sure you are aware, that has been delayed due to requirements of the Health Care Finance Administration and site locations, but hopefully in September this program will start.

As we anticipate, the success of this program TREA knows that this program fully implemented will only resolve approximately 33 to 40 percent of the over 1.2 million that are over 65 years old, and I have attached a GAO report in my testimony that states that the military treatment facility capacity is only another 75,000.

Therefore, to continue meeting the needs of the rest of the program we ask you to support one of the bills that is out there, Senate bill 1334, of which Senator Bond from Missouri is the sponsor, and it currently has 64 cosponsors. Many of the people on this committee are cosponsors of that bill.

And, as was alluded to earlier, the Senate mark came up with a test and also a couple of other provisions, a three-prong approach, but the funding in that is not enough. It is only \$60 million.

And we ask that you and this committee come up with a way to try to expand on Senator Bond's original bill, which would only have two locations, and we think that if we could have at least six locations then maybe we would get a better demonstration, or at least we would know how the program works. To have what the Senators recommended is a step in the right direction, but we think we need more than that.

As you are aware, Secretary Cohen is considering two more rounds of BRAC in 2001 and 2005, so we want that now to test the

Federal Employees Health Benefits Program [FEHBP] in order to meet the challenge of providing health care to our military retirees for the future.

PREPARED STATEMENT

Again, Senator Inouye, I would like to thank you very much for allowing the Retired Enlisted Association to provide their views.

Senator INOUE. Sergeant, I can assure you that at tomorrow's special meeting with the Secretary this will be an item on the agenda.

Sergeant OLANOFF. Thank you, Senator.

Senator INOUE. Thank you, sir.

[The statement follows:]

PREPARED STATEMENT OF CHIEF MASTER SERGEANT MARK H. OLANOFF

Mr. Chairman, on behalf of The Retired Enlisted Association's (TREA) National President, Technical Sergeant David Pahl, U.S. Air Force (Ret) and Auxiliary President Ethel Hale, and over 100,000 members and auxiliary, we appreciate the opportunity to present testimony to this subcommittee concerning the fiscal year 1999 National Security Appropriations. TREA is a federally chartered organization representing retired, active, guard, reserve and family members who are serving (career military) or have served (and are now retired) in every component of the Armed Forces of the United States: Army; Marine Corps; Navy; Air Force; and Coast Guard.

I am Chief Master Sergeant Mark H. Olanoff, U.S. Air Force (Ret), TREA's Legislative Director.

HEALTH CARE PROBLEMS

With the continued down sizing of the Department of Defense (DOD) budget and the impact of Base Realignment and Closures (BRAC) in military retiree communities, retirees are having increasing difficulty in accessing health care. This has lead to a decrease in staff in military treatment facilities (MTF) to meet the needs of the retiree community. Further, the amount of "Space Available" care has been curtailed due to these reasons.

As you are no doubt aware, military retirees over the age of 65 are forced out of the CHAMPUS/TRICARE system onto Medicare. The only other access for health care is through "Space Available" care at MTF's for retirees over the age of 65. Today, these Medicare eligible retirees are left wondering where they will receive their health care.

Retirees who live in non-catchment areas or areas affected by limited access to health care due to TRICARE limitations need alternatives for their health care needs. This group of retirees should not lose their benefits because of where they decide to live.

You know about the promise of guaranteed lifetime health care for military personnel upon 20 years of active duty service or at age 60 for Reserve or National Guard service. This is and was a very powerful recruiting inducement. Many of our members want to know where the benefits are now?

Many military retirees feel as if the government lied to them. They believe that their promised benefits have been taken away purely for political reasons. I would like to speak for all retirees right now and offer some solutions to the health care problem.

SOLUTION 1—FEHBP

There is legislation pending in both the Senate and House to create a demonstration program to allow Medicare-eligible military retirees to enroll in the Federal Health Employee Benefits Program (FEHBP), H.R. 1766 and S. 1334. TREA supports this program as another option to improve access to health care for military retirees. Our retirees have stated that they are willing to pay for the opportunity to enroll in a quality health care program, FEHBP. This is the same health care system that covers all Federal employees, including members of Congress and their staffers. Military retirees are the only group of Federal workers who lose their employer sponsored health care benefit when becoming eligible for Medicare. Why

should there be a difference if an employee wears a uniform or a suit? We want equality.

According to the definition by the Department of Veterans Affairs, all enlisted retirees are considered "indigent veterans", because no enlisted retiree receives a gross retirement of more than \$26,481 (for 1 dependent). This has been used as an argument against the FEHBP Demonstration. However, many of our enlisted retirees have successful second careers, by taking advantage of benefits like the G.I. Bill for college. We understand that health care is not "free" and we are willing to pay for greater access. But many of our retirees did not have all of the retirement options (for example IRA's, Roth IRA's, Education IRA's, 401K's, mutual funds, etc). I want to speak for them right now and Congress provide FEHBP as one choice to access care.

SOLUTION 2—FULL IMPLEMENTATION OF DOD SUBVENTION

TREA would like to express its sincere thanks to the Senate for supporting the Medicare Subvention demonstration program with the Department of Defense. We now would like to see the program expanded to a nation-wide program. Many of our Medicare-eligible retirees have received letters from hospitals stating that "space-availability" no longer exists. We believe that a small investment for Medicare-eligible retirees is necessary to provide health care to those who really need it. Allowing as many Medicare-eligible military retirees to use Medicare at MTF's will provide retirees yet another option for health care. Though this is not the complete solution to the health care for military retirees, because it would only meet the needs of 33 percent of the 1.2 million retirees over 65.

SOLUTION 3—MEDICARE PART "B" WAIVER

H.R. 598 and S. 912, which are pending in both the House and Senate, authorizes the waiver of the penalty for not enrolling in Medicare Part "B" for Medicare-eligible military retirees. Retirees were counseled not to enroll in Part "B" because it would not be necessary because they resided near MTF's to access their free health care. These retirees should not be punished with late enrollment fees due to the fact that the local MTF has closed. The issue must be addressed now as the Secretary of Defense is planning two additional rounds of BRAC for 2001 and 2005.

We believe that the small investment for DOD Subvention and FEHBP along with the waiver of enrollment penalties will restore health care benefits for our Medicare-eligible retirees and allow the employer (Uncle Sam) to receive some needed creditability when it comes to keeping promises.

REASONS DOD IS ACCOUNTABLE TO CORRECT HEALTH CARE PROBLEMS

Mr. Chairman, the time has come to hold the Department of Defense accountable for the current state of military retiree health care. The Fiscal Year 1997 Defense Authorization Act Report, to accompany S. 1745, directed DOD to conduct a study on the cost and feasibility of FEHBP to military retirees over 65 no later than March 1, 1997. Further, the Fiscal Year 1998 Defense Authorization Act Conference Report Section 712, directed the Secretary of Defense to prepare a plan for the expansion of TRICARE Prime not later than March 1, 1998. Also, Section 752 provides a Sense of the Congress that Congress and the President shall take steps to address the availability of health care for such retirees within two years. Further, the fiscal year 1998 Defense Appropriations Conference Report directs the Defense Department to submit a report no later than March 1, 1998 on its plans for all phases of Medicare Subvention. Also, the Secretary of Defense in consultation with the Office of Personnel Management is required to submit a legislative proposal to implement a limited FEHBP demonstration program. As these deadlines pass, we are still waiting for DOD to meet these report deadlines. Now, is the time for action.

I am sure that you are aware of the lawsuit that has been filed in the Federal District Court in Florida regarding military health care. The initial ruling allows two enlisted military retirees who enlisted prior to June 7, 1956 (effective date of space available health care) to sue the government under the Little Tucker Act. This Act allows each retiree to collect damages of \$10,000. Also, a ruling will be made to determine if this lawsuit can be expanded to a "class action lawsuit". If this lawsuit is upheld, billions of dollars will be needed for the millions of military retirees or their survivors. Is this the proper method to solve disputes over promised retirement benefits? I hope not or more lawsuits will occur. Mr. Chairman, where are these studies and proposals? It is time for accountability, oversight, the end of report language, Sense of the Congress, studies, committees and other rhetoric. We want action now.

DOD has stated that it would not be opposed to a limited test of FEHBP in Non-Prime areas. GAO Testimony by Stephen P. Backhus on February 27, 1997 (GAO/T-HEHS-97-84) page 3 states "Between 1987 and 1997, the number of older retirees increased by about 75 percent, to 1.2 million; and they are projected to outnumber active-duty personnel in the future. These changes has significantly reduced the availability of care for retirees in DOD facilities". Further, GAO Report HEHS-97-134 to the Chairman and Ranking Member of the National Security Personnel Subcommittee page 2 states "Finally, relatively few retirees (about 75,000) could be accommodated by subvention at military medical facilities because of facility capacity and financial constraints". On page 9 "the basis of the number of retirees living near military facilities with sufficient capacity to operate a subvention program, we estimated that about 75,000 older retirees could participate nationwide if the subvention program was offered at all but DOD's smallest hospitals". Although DOD expects to care for additional Medicare eligibles in the TRICARE Networks, it is clear that all Medicare eligibles will not be served and that another option is needed.

We believe that the solution for the problems surrounding retiree health care lie in a combination of FEHBP and DOD Subvention. In return for legislation mentioned above for the Medicare-eligibles, we and many other military associations, pledge to you that we will prepare the future retirees for continued health care after retirement. Just as other civil servants have the option to keep this benefit (and pay the premium), we will prepare the future retirees to pay for this benefit. This provides equality to all federal workers whether military or civilian. Finally, the two largest veterans organizations, The American Legion and The Veterans of Foreign Wars have resolutions supporting our position.

RETIREE DENTAL PLAN

This program has been very popular, however, DOD did not provide for the opportunity for beneficiaries to enroll in a plan that would cover bridges, crowns, and dentures. Since many older retirees need these types of dental procedures, recommend DOD be directed to bid a plan that will include them. Also, spouses of military retirees are not allowed to enroll in the new dental plan unless the military sponsor enrolls. Some military retirees use the VA for their dental benefits and do not need to enroll in the Retiree Dental Plan. TREA requests Congress recommend legislation that corrects this inequity.

CONCURRENT RECEIPT

The issue of concurrent receipt of military retired pay and VA disability payment. Currently, there is an offset dollar for dollar in VA disability and military retirement. There is legislation pending in the Senate (S. 657) which would address this inequity by allowing partial restoration of retired pay. Many of our retirees are severely disabled and unable to work. Is it fair that their retirement pay is therefore reduced? No other disabled retired veteran has such an offset of their retirement pay, only the military retiree.

SURVIVOR BENEFITS PLAN (SBP)

Current law requires a survivor of a military retiree to have their pension offset at age 62 due to the eligibility of Social Security. We believe this law punishes our retirees.

This is not a "free" benefit. Our retirees pay premiums to protect their survivors with 55 percent of their retired pay. Whether a survivor receives Social Security should not be a factor as SBP allows retirees more choices to provide for beneficiaries. Further, this offset does not apply to any other federal workers—again we demand equality. Last year, legislation was signed into law which gave service-members the opportunity to withdraw from the SBP. By withdrawing, however, one loses the guarantee of a pension for their survivor. Presently, there is a bill in the House of Representatives (H.R. 3107) that will provide a paid up policy for military retirees who have paid SBP premiums for 30 years and reach age 70, whichever is later. TREA recommends adoption of SBP "paid up" premiums.

OTHER "BENEFITS"

During the deliberations of BRAC, the impact of military retirees does not seem to be a very important issue. Secretary Cohen has already been "Lobbying" for more Base Closures to re-invest in modernization. What about the military retiree who rely on base facilities for health care? Why does DOD wait for bases to close and then try to solve the health care problem? We believe a plan must be in place to

resolve retiree health care before a base closes. Remember, military and retired pay is based on a concept called "Regular Military Compensation" (RMC). Health Care, Exchange and Commissary benefits are included in RMC. When a base or post is closed, the military retiree is not compensated for this loss of RMC. Please remember to think of us when these decisions are made.

RESERVE AND GUARD ISSUES

Many of our members are serving or have served as citizen-soldiers. TREA recommends that members of the guard and reserve be given the same commissary benefit as their active duty and retired counterparts. Again—equality to all, regardless of current status.

Also, another issue of great concern is the Reserve/Guard Mobilization Insurance. This benefit was canceled in the Fiscal Year 1998 Defense Authorization Act. We believe to attract and maintain a viable reserve component that mobilization insurance is an important ingredient to retain quality citizen-soldiers. Further, TREA recommends that active and retired reserve component members be authorized to travel "Space-A" unrestricted. We believe if a seat is available and not filled, then reserve component members and their spouse should be permitted to fly (CONUS and Overseas). We are not advocating any changes to the current "Space-A" priority system. Finally, TREA supports FEHBP for personnel on active duty tours (either Title 10 or Title 32 Active Guard Reserve) as many of these full-time reserve component personnel are not located near a MTF.

CONCLUSION

Would you work for an employer who makes promises for the future and then does not deliver? Many of our members made their life plans based on the promises made to them at the time of entry into the military. We believe a combination of TRICARE, DOD and VA Subvention and FEHBP will solve the access problem for all military retirees. Lets fix this problem now so we can all move on to the other important issues that must be solved.

Mr. Chairman, I would like to thank you and the Committee for giving The Retired Enlisted Association the opportunity to present its views and solutions on the important subject of military retirees and their "earned" retirement benefits.

STATEMENT OF JANE WEISENBERG, VICE PRESIDENT COMMUNITY PROGRAMS, CHILDREN'S HOSPITAL AND HEALTH CENTER, SAN DIEGO, CA

Senator INOUE. Our next witness is the vice president of Community Programs, Children's Hospital and Health Center, San Diego, Ms. Jane Weisenberg. Welcome to the committee.

Ms. WEISENBERG. Thank you, Senator, for this opportunity to testify today in support of the Marine Corps new parents support program, and thanks to this committee for its generous support of this program over the past 5 years.

Your recognition of this project as worthy of Federal support has helped thousands of military families by providing a program whose aim is to prevent the suffering of domestic violence and child maltreatment and abuse. There continues to be a critical need for family support programs for military personnel.

Military families face uniquely stressful and uncertain times. Military service members tend to be younger, more likely to be married, and receive lower pay than their civilian counterparts. Military families lead a transient existence. Most move at least every 3 years, ripping the military family from the support network of friends and relatives that civilian families rely on to get through tough times.

The long absences of spouses, lengthy cruises, battlefield exercises, and peacekeeping missions, add to familial stress. Because military families are separated from their extended families they lose a wealth of knowledge and support regarding raising their children. The new parents support program offers parenting class-

es, such as Daddy's Baby Boot Camp to help new parents learn the necessary skills to care for a child, and the new parents support program has professional, experienced nurses and social workers who can visit the home to help families learn what they need to do to raise a child in a nurturing, caring environment.

The new parents support program was developed and modeled from a demonstration project at Camp Pendleton, run by Children's Hospital in San Diego. Some aspects of the program are available to all new parents, and other services are targeted at families identified to be at high risk, or who have a known instance of child abuse.

New parents support program was made a part of the coordinated community response, a comprehensive U.S. Marine Corps system to address family violence. Since 1992, Children's Hospital in San Diego has offered new parents support programs at all U.S. Marine Corps bases, including Yuma, 29 Palms, Barstow, El Toro, Tustin, Camp Pendleton, MCRD, Miramar, Camp Lejeune, New River, Cherry Point, Parris Island, Beaufort, Quantico, Henderson Hall, Okinawa, Iwakuni, and your own Kaneohe Bay.

Programs of this nature play an integral role in the military readiness by ensuring the stability of military families. We are requesting continued support for the new parents support program. We are requesting \$5.6 million for the Marine Corps new parents support program in the fiscal year 1999 appropriations bill.

We would also like to go on record as being supportive of the other new parents support programs at the other Armed Services. New parent support programs have worked well, and we strongly urge that all new parents support programs be adequately funded.

PREPARED STATEMENT

Thank you, Mr. Chairman, and if you are interested in participating or observing any of our programs I would be happy to arrange that.

[The statement follows:]

PREPARED STATEMENT OF JANE WEISENBERG

Mr. Chairman, my name is Jane Weisenberg and I am the Vice President Community Programs at the Children's Hospital and Health Center in San Diego, California. Thank you for the opportunity to submit testimony for the record regarding the New Parent Support Program. At the outset, I would like to thank the Committee for its generous support for this project over the last five years. Your recognition of this project as worthy of federal support has helped military families since the program's inception in 1993.

Critical Need

There continues to be a critical need for family support programs for military personnel. Military families face uniquely stressful and uncertain times. Military service members are younger, more likely to be married, and receive lower pay than their civilian counterparts.

Military families lead a transient existence which also contributes to the problem of domestic violence. Most move at least every three years, ripping the military family from the support network of friends and relatives that civilian families frequently rely on when times get tough. The long absences of spouses, lengthy cruise, battlefield exercises or peacekeeping missions, add to familial stress. Because military families are separated from their extended families, they lose a wealth of knowledge and support regarding raising children. The New Parent Support Program offers parenting skills classes, home visitations and helps to establish support networks to fill this void.

United States Marine Corps Program

The New Parent Support Program was developed and modeled from a demonstration program at Camp Pendleton, California, run by the Children's Hospital Center for Child Protection in 1990. It subsequently was made a part of the Coordinated Community Response, a comprehensive U.S. Marine Corps (USMC) system to work with family violence. The program was brought to the attention of Congress in 1992, and the decision was made to establish and staff the program at all 18 USMC major bases and to test its viability for other branches of the Service. Since 1993, the New Parent Support Program has been successfully implemented on all 18 major USMC base:

Yuma, AZ	Camp LeJune, NC
29 Palms, CA	New River, NC
Barstow, CA	Cherry Point, NC
El Toro, CA	Parris Island, SC
Tustin, CA	Beaufort, SC
Camp Pendleton, CA	Quantico, VA
MCRD, San Diego, CA	Henderson Hall, VA
Albany, GA	Okinawa, Japan
Kaneohe Bay, HI	Iwakuni, Japan

Since this time, services have also expanded to include new installations such as Miramar, California.

The New Parent Support Program uses a combination of nurses and social workers to provide comprehensive home visitation services to families identified at risk for abuse and/or neglect. Additionally, infant parenting and child education classes are offered to all personnel located at each base. Home visitors provide support and advocacy and link client families to military and civilian adjunct services. The New Parent Support Program delivers three levels of service:

Level 1.—Level 1 services are community based primary prevention activities including parent education classes, infant education classes, support groups, playmorning, and a wide variety of site-specific specialty classes tailored to meet the individual needs of each site. Any active duty service member or family member of the military community is eligible for Level 1 services. Average participation is 9.8 persons/activity, and over 30 percent of the families participating in the standard 18 week parent education curriculum had both mother and father attending the classes.

In addition to the community-based primary prevention activities, the New Parent Support Program also offers primary prevention Level 1 home visits by a registered nurse to all pregnant women on each military installation. Level 1 home visits begin in the third trimester of pregnancy and may continue until six months post partum. Any risk identified during these home visits automatically elevates the Level 1 family to on-going Level 2 or 3 services.

Level 2.—Level 2 services provide case-specific prevention for families identified as "at risk" or "high risk: for abuse and/or neglect including both spousal abuse and child maltreatment. These families may be referred to NPSP by a military agency such as the Family Service Center or the Family Advocacy Program or they may be self-referred. Level 2 intervention includes home visitation services by both nurses and social workers, case management, parent education classes, support groups, and referrals to appropriate military and civilian resources.

Level 3.—Level 3 services are prevention and intervention services for families with a known incident of either child maltreatment and/or spousal abuse. Level 3 services for active duty service members may be mandated by the service member's military command. The intervention with these families includes all the components of Level 2 services as well as the development of a safety plan, victim advocacy, and appropriate coordination with the Family Advocacy Program. All NPSP clients have access to their home visitor by beeper 24 hours a day, seven days a week.

The fifth year evaluation suggests that appropriate families are being referred to the program. During 1997, 3,228 Marine Corps families received home visitation services and 15,441 referrals were made for these families to community-based support services. In addition, the families are responding positively—of 6,415 requests for service, 49 percent of the families agreed to participate. That is a relatively high engagement rate for a program of this type.

Children's Hospital of San Diego

For 15 years before the military's involvement in the New Parent Support Program, Children's Hospital of San Diego successfully sponsored a similar program throughout San Diego County. The program was then started as a pilot demonstration project at Camp Pendleton. The Camp Pendleton program was designed to fur-

nish a broad range of clinical, educational, in-home, and counseling services to eliminate the potential clauses of child abuse. This resulted in a two-year cooperative effort between the Children's Hospital of San Diego and the U.S. Marine Corps. Then in 1992, the Children's Hospital was competitively awarded the contract to extend the Camp Pendleton model worldwide. To date, the program has met with exceptional success.

Children's Hospital's Center for Child Protection has long had a reputation as a center of excellence for dealing with prevention and treatment of child abuse and neglect. Because of the long-standing relationship between the Children's Hospital, the Marine Corps and its widespread recognition as a center of excellence for pediatric care, the hospital is uniquely qualified to continue this fully implemented program.

Need for Congressional Support

Tremendous pressures are placed upon military families today. Large numbers of families of active-duty personnel, young spouses and very young children, are often living in communities, isolated from their extended families and frequently the services of the installation where the service member works. The need continues for programs aimed at assisting these families to cope with such pressure. Advocacy programs of this nature play an integral role in military readiness by ensuring the stability of military families during uncertain times, and should receive priority consideration by Congress. Unlike most existing military child protection programs which focus on child abuse after it happens, the New Parent Support Programs are aimed at preventing the abuse and providing family support for families at risk.

Congress has generously provided support for the Marine Corps New Parent Support Program for the last five years. In light of this Subcommittee's previous support for the New Parent Support Program and for other family advocacy initiatives, we are requesting \$5.6 million for the Marine Corps New Parent Support Program in the fiscal year 1999 Appropriations Bill to advance and continue these vital programs for the U.S. Marine Corps. Mr. Chairman, I would also like to go on record as being supportive of the New Parent Support Programs of the other Armed Services. The hardships of military life does not only affect the Marine Corps, but the honorable men and women in the other services as well. The New Parent Support Programs have worked well and we strongly urge that all of the New Parent Support Programs be adequately funded.

Thank you, Mr. Chairman, for your consideration of our request.

Senator INOUE. I can assure you that the problem you have cited is high on our agenda. We are well aware that the men and women who serve spend about half their time away from their homes either on exercises or deployed missions overseas or in training centers, and we are also well aware that the conditions of employment are not the most conducive to family tranquility. It is one of the most frustrating and aggravating problems we have, but I can assure you we will do our best.

The chairman and I are the dinosaurs of the Senate. We served in World War II at a time when about 5 percent of military personnel had dependents. Today, over 65 percent of our men and women have dependents. That is a big difference, and we are trying our best to maintain the high caliber of personnel that we enjoy at this moment, and we are afraid that if we do not do something about it now we may lose it. I thank you very much.

Ms. WEISENBERG. Thank you, Senator.

STATEMENT OF MILDRED BROOKE, VICE PRESIDENT, J&E ASSOCIATES

Senator INOUE. Our next witness is Mildred Brooke, vice president, J&E Associates.

Ms. BROOKE. Good afternoon. My name is Mildred Brooke. I am the vice president of operations at J&E Associates, Incorporated, a privately held management consulting firm. I want to thank you for the opportunity to appear before the subcommittee and for the

support that you and the other Members of the subcommittee have given military families, particularly those at-risk families that I will discuss.

Our professional staff at J&E provide services internationally that address a broad range of human service needs through Government agencies at the local, State, and national levels. We are currently working in partnership with the Departments of the Army and the Navy on their family advocacy programs. I wish to focus my remarks today on the Department of Defense child abuse prevention program known as the new parents support program.

Senator Inouye, I know you are very familiar with the new parents support program because you were instrumental in securing the initial funding for the program in 1992 and have given support for the program as it has expanded since that time. We thank you for that leadership, and call upon you once again, as we need that leadership now more than ever, as I will explain.

At present, we operate the new parents support program at 29 Army installations worldwide as opposed to the originally planned 50 installations, and until the dramatic reduction in the current fiscal year funds we also provided the program at 16 Navy bases, but that has been reduced to 5.

My comments today are in support of restoration of funds in 1999 to the prior years level. Unfortunately, in fiscal year 1998, the funding level which had been provided by this subcommittee in 1995, 1996, and 1997 was not provided, thereby resulting in an 80-percent reduction in overall dollars, which seriously crippled the program at most sites and ended it at others.

Although DOD has notified us that some additional moneys will be available in 1998, it is still inadequate to maintain the program in the quantity and at the quality which Congress has supported in the past. In the Armed Services, six children of every 1,000 are subjected to child abuse each year. This equates to 8,000 documented cases each year and does not include all the children who suffer from neglect.

The new parents support program is based on a practical, successful model for preventing family violence. The program targets expectant parents and families with children under the age of 6 years. Services are provided through home visits, education classes, support groups, and structured playtimes for parents and children. The program is particularly critical for young military parents, who are often separated from their families and friends during times of stress.

I am requesting that the subcommittee again demonstrate its support for the program at the level that will ensure that all families with need and those at-risk children that are victimized by the unique stresses to which their parents are subjected be restored to the funding level at which it was previously of \$20 million.

If the funding remains at the projected level, \$10 million, it is predicted the program will serve only 10,000 families a year, in contrast to the more than 60,000 families who voluntarily participated in 1997.

One approach to adapt to this reduction is to limit the services to families with children under the age of 1 year, instead of the current requirement for under 6 years.

Unfortunately, this approach will miss the military families who may be in greatest need of the program. National data supplied by the Department of Health and Human Services shows children are at the greatest risk for child abuse in their first year of life for civilian families, but in military families, 3- to 4-year-olds are the most vulnerable to child abuse.

I would like to close my comments today by noting that the military families being served by the new parents support program have come to our staff and to their commanders to express how disheartened they are by the recent reduction in services as a result of the funding cuts. On behalf of these young parents, I ask that you give fullest consideration to restoring the funding of this proven program to its prior years level of \$20 million, which would include the \$5.6 million earlier mentioned.

PREPARED STATEMENT

Thank you for this opportunity today, and I am prepared to answer your questions.

Senator INOUE. I can assure you, Ms. Brooke, that I will do everything possible to see that the funds are restored.

Ms. BROOKE. Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF MILDRED BROOKE

My name is Mildred Brooke, Vice President of J&E Associates, Inc., a privately-held management consulting firm that was founded in 1985. J&E has focused its efforts in providing direct mental health, substance abuse, and social services to vulnerable populations in need of assistance. Today, we provide services internationally and address a broad range of human service needs through government agencies or private firms at the local, State, and national levels. We currently have contracts with the Departments of the Army and Navy to provide an array of family advocacy services. Among the programs for which we provide management and professional staff is a highly regarded, effective child abuse prevention program known as the New Parent Support Program, or NPSP. At present we operate the NPSP at 29 Army installations worldwide. Until a reduction in the funds available for the NPSP led to staffing cutbacks, we also provided staff for the program at 16 Navy bases—a number that has since been reduced to 5.

My comments today are in support of a restoration of funds that were cut from the NPSP in this year. Before fiscal year 1998, the NPSP was funded at \$20 million and was available to families at most military installations with large populations of young children. At the beginning of fiscal year 1998, funding for the NPSP was cut by a full 80 percent, all but crippling the program at many sites and ending it at others. Although \$6 million has since been added to the fiscal year budget, the NPSP will simply not meet the objectives it was designed to meet unless the funding levels Congress has supported in the past are restored.

So that you can appreciate why funding for the program should be restored to the \$20 million level, let me begin by telling you a bit about the NPSP and what military family members think about the program. I will then explain how the budget cuts made in fiscal year 1998 have impacted the program and how services will be affected if the budget for the program is left at \$10 million for fiscal year 1999.

The NPSP—Who it Serves, How, and Why.—Across the Armed Services, 6 children out of 1,000 are subjected to child abuse, equating to more than 8,000 substantiated cases of child abuse per year. The NPSP, a program which exists in some form in all four Services, is based on a practical, successful model for preventing family violence, in particular violence against children. As designed the program targets expectant parents and families with children under the age of 6 years and provides support, referral, information, and educational services. This is especially critical taking into consideration the fact that new parents in the military are often isolated from friends and families who might otherwise provide them with support. In the Army and Navy alone, the program provided services to more than 66,000 participants from military families.

By working closely with families who participate voluntarily in the NPSP, the highly trained licensed nurses and clinical social workers who staff the NPSP can identify at-risk families and provide a variety of interventions designed to decrease the risk of abuse in these families. The interventions included as part of this program include home visits, parenting and infant care classes, support and therapy groups, developmental play groups, and other activities, including referrals to additional military and civilian services. Through these activities, the NPSP staff helps these families learn to cope with stress, isolation, post-deployment reunions, and the everyday demands of parenthood. This contributes to a measurable reduction in the frequency of child abuse among participating families. Although the focus of the program is on children and families, the program also helps to decrease the incidence of spousal abuse in military families.

Like all programs for military families, the NPSP must be tailored to meet the needs of each military community participating in the program. For example, at one installation served by one of my company's New Parent Support teams, groups for teenage mothers were established to meet a special local need. Where language is a concern, our staff has offered classes and materials in both English and Spanish.

The NPSP meets unique needs, however, every effort is made to coordinate with existing programs and services. For example, at one installation, infant care classes are offered as a joint effort of the NPSP and the Red Cross. Across installations, the NPSP works in tandem with the Family Advocacy Program (FAP), the DOD program with overall responsibility for preventing family violence, complementing and expanding the FAP's prevention services. The program is particularly valuable in reaching and assisting families who live in isolated communities and face tremendous pressures. These families, often young and inexperienced, have a high risk for abuse and/or neglect. In 1997, J&E determined that 18 to 20 percent of the Army families receiving home visits by the NPSP had a documented incident of child and/or spousal maltreatment, as determined by the Army's Case Review Committee. For these families, the home visits were designed to emphasize safety, build skills and knowledge, improve problem solving, and reduce isolation. When we examined all cases that received home visits from our staff in 1997, J&E staff found that approximately 60 percent of the cases across Army installations worldwide were documented as being "at risk" or "high risk" for abuse and/or neglect. Clearly, these data indicate the seriousness of abuse and neglect in military families and demonstrate a documented need for services such as the NPSP.

What Do Military Families Say About the NPSP?—As the contractor for the Department of the Army's NPSP effort, J&E has sought feedback on the usefulness of the program from participating families. Some examples we have received are as follows:

Eighty percent or more of the family members at three military installations who participated in infant care classes in late 1997 rated the class as "excellent". At two installations where parenting classes were offered in Spanish, in excess of 90 percent of the participants rated these classes as "excellent".

Participants, when asked to write about their experiences with the NPSP home visits and parenting classes, uniformly wrote glowing reports about the staff and program benefits. Their comments included the following:

"I feel that breaking down how an argument starts between a couple with some 'hands on' examples helps the couple understand how to prevent arguments."

"The home visitor has been a big help to me and my wife."

"The home visits gave me a chance to verbalize my concerns and fears."

"During my husband's long deployment to Bosnia, I had many questions and worries about our first child, an infant of 4 months. I turned to the NPSP for help and they came to my home for one-on-one parent conferences."

"I think the program was very helpful to my family and myself at a time when we really needed help."

"I wish I would have taken this class earlier."

"I really enjoyed being part of this class. I learned more about parenting and being patient."

"That is something I really needed to learn."

The Impact of the Fiscal Year 1998 Budget Cut.—As you can image, the NPSP was substantially scaled down from its planned scope when its budget was slashed by 80 percent at the beginning of 1998. To illustrate, the Army's program was originally designed to serve 39 Army installations, with expansion to 50. However, due to funding cuts, it now serves 29 sites, with only modified services available. We are no longer able to provide the full complement of staff needed for each team (social workers, nurses, and administrative staff) despite the number of families needing services at each installation. Most program teams at each installation are staffed at levels below that which is required. Because of lack of funding, the NPSP

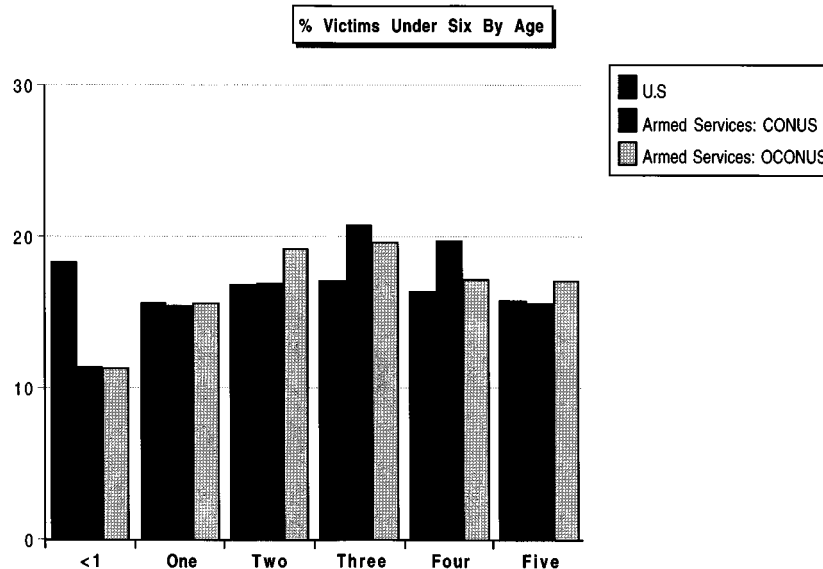
staff now make less frequent home visits, and provide fewer classes. In addition, certain culturally-specific services have been eliminated. In short, the very activities that have made the NPSP a success are being undermined.

What Can We Expect in Fiscal Year 1999.—The future of the NPSP depends in large part on Congress' commitment to the program. If Congress demonstrates, as it has in the past, that it does not want military children to be victimized by the unique stresses to which their parents are subjected, it will restore funding for the NPSP to the pre-1998 level of \$20 million. The NPSP will once again be a model program for child abuse prevention and proof of our nation's commitment to the well-being of military families. If, on the other hand, funding is left at \$10 million, the NPSP will only be able to serve approximately 10,000 families per year, in contrast to the 60,000 families who voluntarily participated in the program in 1997. One plan under discussion to achieve this dramatic reduction in services is to limit services to families with children under the age of one rather than under the age of six. This plan, simply stated, is a fix that focuses on dollars rather than on the reality of child abuse in military families.

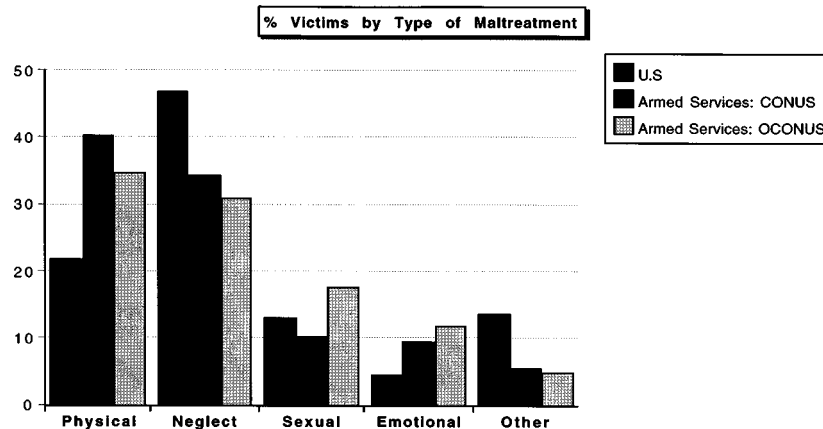
In civilian families, national data show that children are at greatest risk for child abuse during their first year of life, and the most frequent form of child abuse is neglect. However, in military families, data collected before the NPSP became widely available showed that three- and four-year-olds are at greater risk of abuse, and physical abuse is the most common form of abuse.¹ (See following graphs.) As a nation, do we really want to operate a program to protect one group of military children from child abuse and turn our backs on another larger group of children whom we know to be at even greater risk? I don't believe we do and trust that you will prove that we do not.

Closing.—I would like to close my comments today by noting that participants in the NPSP—military families with young children—are disheartened by the funding cuts to the program. They are writing letters in support of the program and are phoning their respective Commanding General's hotline to express concerns. At one installation where we operate the NPSP, participants have offered to volunteer their services to help keep the program available. The comments of one young mother at one of our Army sites captures what these families feel. She said, "I don't understand how a program like this cannot be funded when it's such a big asset to the parents and children of this installation. (The installation) is in desperate need of a program like this."

Thank you for this opportunity to address the committee today.



¹U.S. Department of Health and Human Services, Child Maltreatment: Reports from the States to the National Center of Child Abuse and Neglect, 1993.



STATEMENT OF MASTER SERGEANT MICHAEL P. CLINE, (RET.), EXECUTIVE DIRECTOR, ENLISTED ASSOCIATION OF THE NATIONAL GUARD OF THE UNITED STATES

Senator INOUE. Our next witness is Master Sergeant Michael P. Cline (Ret.), executive director, Enlisted Association of the National Guard of the United States.

Sergeant CLINE. Good afternoon, Senator Inouye. We thank you for allowing us to participate in these hearings. We are honored to be able to present the views of our members on the efforts of this committee.

Mr. Chairman, I must report to you that the relationship between the Active Army and the Army National Guard is still not fixed. Although the Army has made some attempts to alleviate the shortfalls of the Army National Guard, there still remains a significant shortfall in fiscal year 1999 appropriations of \$634 million.

Why do we feel that there is a continuing problem? Look at the recently passed fiscal year 1998 emergency supplemental appropriations. The Army National Guard started out with \$5.9 million in additional operations and maintenance funding in the original bill. It received only \$175,000 in the final bill. The Air National Guard began with \$975,000 for operation and maintenance. It received nothing in the final bill. The House Security Committee recently completed its work on the fiscal year 1999 defense authorization bill. The estimate for the Army was increased by 4,800 positions, while the Army Reserve full-time manning was increased by 1,000 positions. The Army National Guard was cut by 4,516 positions.

April figures show that the Active Army and the Army Reserve cannot meet current end strength requirements. Attrition rates for the Active are about 36 to 37 percent, while the Army National Guard is above current end strength levels, with an attrition rate of only 17 percent.

Where is the rationale for increasing the Army and Army Reserve while making deep cuts in the Army National Guard? Its costs are significant to send and train soldiers and to have them replace existing soldiers just does not seem feasible.

The Army National Guard's 1999 budget shortfalls total \$634 million, \$184 million in the pay and allowances account, and \$450 million in OPTEMPO accounts. This shortfall represents less than 1 percent of the total Army's budget.

Mr. Chairman, I realize that the budget resolution means no additional funds. I believe the Army National Guard shortfall can be divided from other forces. Historically, the Army funds OPTEMPO high, but only executes 71 percent. That remaining 29 percent of their funding is more than enough to make up for the Army National Guard's shortfall.

As you are aware, the Army has not been able to maintain end strength suffering, from an attrition rate of above 36 percent. The Army Reserve has had the same problem. The Army National Guard continues to maintain its end strength at only that 17 percent attrition rate. The Army's personnel account can easily afford to lose funding. The Army National Guard's shortfall can be derived from the personnel funding the Army does not need anyway.

PREPARED STATEMENT

Mr. Chairman, Senator Inouye, you fought hard last year to get the Army to play fair with the Guard, and we appreciate your efforts and hope you will continue to fight on behalf of the men and women of the National Guard. Unfortunately, the problem is still with it. The Association of the National Guard and members of The Military Coalition voice support for the legislative agenda of The Military Coalition. I would like to thank you, Senator Inouye, and the chairman for giving us this opportunity to testify.

[The statement follows:]

PREPARED STATEMENT OF MASTER SERGEANT MICHAEL P. CLINE

INTRODUCTION

Mr. Chairman, Members of the Defense Subcommittee of the Senate Appropriations Committee: I am honored to have this opportunity to present the views of the Enlisted men and women of the National Guard of the United States. Our members are very appreciative of the support extended to them in the past, and are very confident that you will, through your diligent and conscientious efforts, give serious consideration to the most critical issues facing the National Guard today.

The citizen soldiers of today are truly the finest ever. You may ask yourself, Mr. Chairman, why are NCO's and Enlisted people so concerned about the budget? This is the bottom line: It is the NCO's' direct responsibility to train the troops that the Administration and Congress deploy around the world. The National Guard must have adequate funding to fully train its soldiers and airmen and protect them from harm. The Guard must be adequately prepared and resourced to complete its varying assigned missions and avoid degrading criticism from its adversaries. Without these additional funds, the National Guard will fall into the hollow force that is being predicted by some individuals in the military community.

As the drawdown of the active forces continues, the Guard is being called upon more and more to provide peacetime and combat-ready support for contingencies around the world. Shortages in specific areas are becoming acute. While we assert that the use of the National Guard is the most cost effective means of implementing a strong national defense strategy during these financially constrained times, we also believe that we must have adequate funds to maintain the best possible services to our nation.

ARMY NATIONAL GUARD

Mr. Chairman, based on information received from the Department of Defense and on the budget submission presented by the administration, the Army National Guard has a major shortfall in the fiscal year 1999 appropriations. Once again, the

President's budget submission contains budget information that will bankrupt the Army National Guard and completely destroy its ability to perform its mission. The fiscal year 1999 budget for the Army National Guard (ARNG) will only pay approximately 71 percent of its requirements—requirements that were decided upon and validated by the Department of the Army, not by National Guard officials.

The ARNG's 1999 budget shortfalls total \$634 million. \$184 million is in the pay and allowances (P&A) accounts and \$450 million is in operations and maintenance (O&M) accounts.

	<i>In millions of dollars</i>
P&A (Pay and Allowances):	
Military Schools and Special Training	156
Recruiting and Retention Bonuses	18
Active/Guard/Reserve Pay	10
Total P&A	184
O&M (Operation and Maintenance):	
Surface OPTEMPO	110
Real Property Maintenance	98
Depot Maintenance	94
Information/Telecom Management	73
Medical Support and AT/IDT Supplies and Services	75
Total O&M	450
Total Unfunded Requirement	634

This budget request fails to provide sufficient funds to maintain minimum readiness levels. Failure to fund Army National Guard O&M and P&A accounts will have a detrimental impact on ARNG readiness, recruiting, retention and the ability to perform both state and federal missions. This shortfall is forcing National Guard NCO's to choose between attending schools needed for promotion or staying with their units to mentor junior enlisted troops. Inadequate funding of Schools and Special Training accounts decreases unit readiness, reduces promotion capabilities and diminishes retention rates.

A shortfall in the Bonuses funds limits the recruiting market and diminishes retention rates. Not fully funding active Guard and Reserve pay does not support the Quadrennial Defense Review's programmed strength for the ARNG and forces the ARNG to begin separation procedures as well as limiting the ability to support traditional National Guard soldiers.

The shortfall in Surface OPTEMPO funds does not fund later deploying units. Real Property Maintenance underfunding will permit only limited emergency repairs, will allow deterioration of ARNG facilities and will contribute to the increase in the maintenance backlog of equipment. Unserviceable equipment awaiting Depot Maintenance adversely impacts training and readiness. Lack of funding for Depot Maintenance decreases the pool of available serviceable assets for both mission and training requirements and jeopardizes Division redesign plans. A funding shortfall in the Information/Telcomm Support account means that the ARNG cannot maintain basic information structure; the Reserve Component Automation System cannot be supported. The Miscellaneous Med/Tng Support, Supplies and Svcs account needs funding for medical supplies, medical screening and training support programs to ensure combat readiness.

The National Guard's eight combat divisions are the hardest hit since the budget funds a small portion of their operating tempo requirements. These divisions are providing many of the Guard elements deploying to Bosnia, while active Army divisions that receive the highest funding priority spend much of their time at home station. The guys who are being funded to go overseas are staying home, and the guys who are being funded to stay home are going overseas.

In recent years, budget requests have not adequately funded ARNG readiness accounts, including O&M and P&A. This inadequate funding, represents only 1 percent of the Total Army budget.

The current fiscal year 1999 funding level for the ARNG will not maintain the minimum readiness level necessary to fulfill our obligation to National Defense. National Guard Bureau has broken out the items/program that will benefit from each additional \$50 million plus-up in funding provided by Congress:

\$50 million add-on

Fully funds Active Guard/Reserve (AGR) personal pay
Fully funds schools for the Enhanced Separate Brigades
Provides 50 percent of the funding needed for Special Training for the Enhanced Separate Brigades.

\$100 million add-on

Early Deployers and Activating units are funded to 100 percent
Schools are funded for Echelon Above Division FA units

\$150 million add-on

ARNG Bonus program will be fully funded
Late deploying units will be funded to 75 percent of Department of Army (DA) requirements
Medical Support will be funded to 71 percent of DA requirements

\$200 million add-on

Increases Real Property Maintenance funding to 49 percent
Funds emergency repairs
Depot Maintenance funding to non-deploying units will be increased to 17 percent

\$250 million add-on

Increases funding of information technology to 50 percent. Basic infrastructure and connectivity will be maintained, but technology upgrades will not be paid
Money would also be used for Annual Training and IDT training support, contract services and supplies

\$300 million add-on

Fully funds the Late Deploying units

\$350 million add-on

Funds 57 percent of Divisional unit MOSQ and Leadership Development Requirements

\$400 million add-on

Increases funding to non-deploying units' Depot Maintenance, bringing it up to 42 percent of DA requirements

\$450 million add-on

Increases funding for Information Technology to 75 percent of DA requirement, allowing for systems upgrades and limited replacement of equipment

\$500 million add-on

Funds 80 percent of other contract Medical Services and Supplies for ARNG activities
Increases funding for schools for Divisional units and for Special Training for Enhanced Separate Brigades and EAD-FA units

\$550 million add-on

Fully funds Schools and Special Training requirements
Increases Depot Maintenance funding to 61 percent
Allows for limited upgrades and repairs to ARNG equipment

\$600 million add-on

Increases Real Property Maintenance funding to 80 percent
Depot Maintenance funding to non-deploying units increases to 44 percent

\$634 million add-on

Fully funds the ARNG unfunded requirements in the fiscal year 1999 budget
Increases Depot Maintenance to non-deploying units to 50 percent
Funds Medical Support (physicals, screening) to 100 percent
Funds Training Support to 80 percent
Funds other Supplies and Services to 84 percent

RCAS

The President's budget requested adequate funds to field the Reserve Component Automation System (RCAS) for fiscal year 1999. Last year, cuts in funding to RCAS were made during the appropriation process, but were added back in at a later time. EANGUS asks that the President's budget request be maintained on this item as

the legislation moves through Congress. In addition, supplementary funding is needed to institute distance learning programs.

MLRS

In its first combat deployment in Operation Desert Storm, the Multiple Launch Rocket System (MLRS) dominated the artillery battlefield. Army National Guard units from Oklahoma and Arkansas performed admirably, utilizing the capabilities of MLRS. These units not only performed magnificently, but also assisted coalition forces from the United Kingdom and France during the advance into Iraq. From January 17, 1991, until February 26, 1991, units from the 1-158 Field Artillery MLRS fired more than 934 rockets at Iraqi defenses. The overwhelming success of MLRS in Desert Storm emphasizes the importance of a modernized artillery force.

Today, the National Guard represents two-thirds of the total Army's artillery force. MLRS is a mission in which the Army National Guard can reasonably be trained and prepared quickly to assist the regular Army in future contingency missions. Modernization with MLRS is far from complete; 11 National Guard battalions and seven National Guard divisions are unfunded. The Army's budget request for fiscal year 1999 contained no MLRS Launchers—the unfunded request is for the National Guard only. Eight of the ten MLRS battalions the Guard does have were congressional add-ons. \$150.4 million in additional appropriations to the Army's procurement account is necessary to add an MLRS battalion to the Army National Guard in fiscal year 1999. Although there are plans to downsize battalions to 3 times 6 (18 MLRS), resulting in an additional 9 units per battalion which will cascade down, additional funding will not be wasted. So many MLRS units are needed that any add-on in fiscal year 1999 would be a valid request.

ENGAGEMENT SKILLS TRAINER

The Engagement Skills Trainer (EST) is an interactive weapons simulator that integrates leading-edge technology in computers, audio visual systems and lasers. The result is a relatively low-cost system that allows full training in weapons marksmanship and judgmental firearms training by military and law enforcement users on an international basis. The obvious advantages of this system are reduced live ammunition and range operation costs, virtual elimination of safety and environmental risks and reduced "dead" time in travel to and from live fire ranges. The fidelity of the interactive targets and scenarios provide trainees with "real world" situations involving use of force options without risk to trainees, live trainers or bystanders.

The Army National Guard is currently fielding the EST in two configurations: a full twelve-lane EST with a focus on training collective (squad level) tasks, and a four-lane configuration with a focus on individual skills and tasks. The training value of the EST for the individual combatant/section/crew and squad has been validated throughout the ARNG and fully supports the strategic vision for training in the 21st century. The accelerated ammunition reductions within the U.S. Army (\$40 million a year) place a renewed urgency on fully fielding the National Guard with the EST. The current fielding plan is to place a four-lane trainer in most Army Guard armories throughout the U.S. and place the full EST at larger sites and training centers.

Several Army Guard units have established arrangements informally with local law enforcement agencies for co-use of Guard simulator systems to conduct needed law enforcement training. This Community-Based Simulation Training Strategy envisions the Army National Guard continuing to field the EST in consonance with the Army's validated requirement and training strategy. This concept draws upon the "Community-Based Defense Force" mission of the National Guard. Local law enforcement will work out individual agreements with the local Army Guard unit. It is envisioned that this program will grow into a national program involving all Reserve Component forces.

The concept of this Community-Based Simulation Training Strategy entails funding for approximately \$5 million to allow for the establishment of a valid pilot program across an appropriate spectrum of locations in the nation. At approximately \$48,000 per system, this would allow for fielding 104 lane trainers in various communities and states. After system fielding and implementation of the pilot program, a report will be generated showing actual cost savings for the Guard and law enforcement participants in the program. The results are expected to illuminate the need for completion of the fielding of the remaining systems over the next four years.

AIR NATIONAL GUARD

The Air National Guard (ANG) has proven to be one of the most cost-effective means of maintaining Total Air Force capability within the constraints of a shrinking defense budget. This is evident with the continued involvement in worldwide contingencies by the ANG C-130 airlift forces.

Below are the unfunded requirements for the ANG for fiscal year 1999:

	<i>In millions</i>
Miscellaneous ANG Equipment:	
F-16 Targeting Pods	160.5
Data Links for F-16, A-10, F-15, B-1	64.951
Night vision capability	20.931
Improved aircraft survivability	50.005
Training systems	12.810
Total Miscellaneous Equipment	309.197
F-16 A/B Service Life Extension	18.000
Real Property Maintenance	24.000
Depot Maintenance	26.000
Real Property Maintenance Backlog Reduction	26.000
Total ANG fiscal year 1999 Unfunded Priorities	403.2

The ANG F-16's require a targeting pod to fulfill current Precision-Guided Munitions requirements. Recently, several low-cost targeting pods have been produced that could dramatically increase capability at a relatively low initial cost. These pods would improve ANG combat capability and contingency support availability.

Data Links for F-16's, A-10's, F-15's and B-1's are needed to save soldier's and airmen's lives by preventing fratricide and enhancing situational awareness while providing accurate combat ID capabilities. Links also provide access to data for battle participants, giving them target/threat information and intelligence.

Night Vision capability consists of: Night Vision Goggles; F-15 Night Vision Imaging System; HC/C-130 Night Vision Imaging System program and the HC-130 AN/ARS-6 Personnel Locator System. Night Vision is the key to sustained 24-hour combat operations and is essential for successful combat execution, lethality and survivability. Night Vision is also essential for minimizing search time and providing quick, positive identification in search and rescue missions.

Improved Aircraft Survivability includes: the Electronic Warfare Management System; the Mega Data Transfer Cartridge; C-130 Cockpit Armor; the HC-130 Integrated Electronic Warfare System and Fighter Engine Modernization.

Training Systems consist of: new A-10 Unit Training Devices (simulator); F-15 Full Mission Trainers; video recording system for the B-1 and Automated Squadron Management System.

The Service Life Extension Program for F-16A/B Aircraft is required on 24 F-16A/B aircraft in order for them to last through 2005. Many of these aircraft have already exceeded their programmed service life of 4,000 hours. This repair/modification requires \$8.64 million of Aircraft Procurement and \$9.6 million of Operation and Maintenance, ANG funding.

At \$86 million for fiscal year 1999, the ANG Real Property Maintenance budget will be insufficient to meet the urgent requirements. Backlog of Maintenance of Repair will be \$643 million at the end of fiscal year 1999 based on current funding. \$24 million is urgently needed to repair severely deteriorated airfield pavements, upgrade infrastructure at joint use airfields, bed down new mission requirements and correct fire and safety deficiencies. \$26 million is urgently needed for repair of roofs, exterior walls, windows and doors. It would also be used to repair heating, ventilating, electrical, water and sewer systems.

The ANG Depot Maintenance account for fiscal year 1999 needs an additional \$26 million to eliminate deferred aircraft, engine and support equipment maintenance.

C-17

The C-17 is essential to the Air Force's ongoing modernization of its air mobility forces and is key to meeting the nation's strategic mobility requirements for the 21st century. The C-17 possesses the full range of capabilities that will meet critical DOD and national needs; long range, outsized and oversized cargo, the ability to operate on simple and congested runways, efficient on-load and off-load, airdrop and excellent defensive systems. It will replace capacity lost as C-141's retire. The burdens placed on U.S. strategic mobility forces will not become less demanding in the future. In fact, the potential demands of peacetime engagement, the likelihood of

smaller-scale contingencies worldwide, and the increased possibility of confronting nuclear, biological, and chemical threats all pose challenges for mobility forces. The current acquisition plan for the C-17 will severely hamper our nation's strategic mobility forces. Additional funding to provide for fielding of the first C-17 to the ANG is necessary sooner than planned. Aging C-141's are 40 years old and have suffered from overuse. Enlisted Aircrews' lives are at risk, as well as the pilots of these aged aircraft.

FULL-TIME SUPPORT

The National Guard's role under the Total Force Policy is substantial; it requires high levels of readiness. The ability of Guard units and personnel to mobilize, deploy, integrate and operate was amply demonstrated during Operation Desert Shield/Desert Storm and now Bosnia. The level of full-time support manning has a direct and demonstrated influence on readiness capabilities and is dictated by mission and equipment levels rather than by end strength. Full-time support manning is a pivotal element in day-to-day operations and functions in administration personnel, supply and training preparation and in enhancing the quality of training by making inactive duty training periods and annual training more efficient and effective. A need exists for full-time spaces to support organizing and maintaining state health and dental clinics.

CLOSING

Mr. Chairman, it is our Association's belief that the National Guard, in conjunction with the active component, represents the most cost-effective weapon at our disposal to defend our nation. The National Guard's potential has barely been tapped. Yet, it stands ready, willing and accessible to meet our defensive needs. It is imperative to ensure that the National Guard has the necessary support to fully develop into an integral part of the Total Force. This can only be accomplished through modernization of equipment, a stable force strength, and training. Shortchanging any one of these areas could prove fatal to the effectiveness of the National Guard and the defense of our country.

Mr. Chairman, the National Guard is your next door neighbor, he or she may be a truck driver, your lawyer, your son or daughter or your grandchildren's teacher. When the National Guard is called, America goes to war. The National Guard is family. Americans at their best. The National Guard—Protectors of Freedom. Defenders of Peace.

I would like to thank the Chairman and Members of this committee for the opportunity to provide testimony on the fiscal year 1999 funding requirements for the Army and Air National Guard.

Senator INOUE. I know this is one of the most vexing problems we face at this time. I was hoping this matter could be resolved by now, but apparently it will be with us for a long, long time.

Sergeant CLINE. If I could add something, Senator Inouye. It has been our association's belief that end strength and force structure is an issue of the officers. We normally let them take care of that business, but things have gotten so bad.

When we are only facing 13 percent OPTEMPO in our eight divisions, that means the tank commander gets to drive his tank 13 miles a year. How do we expect somebody to be ready to go in harm's way when they cannot meet their OPTEMPO requirements, and it is the enlisted guy who is out there in the forefront in the Army doing the job.

Senator INOUE. And yet they expect you to do it.

Sergeant CLINE. Yes, sir. Thank you, sir.

Senator INOUE. Thank you very much.

STATEMENT OF CMDR. VIRGINIA TORSCH, MSC, USNR, THE MILITARY COALITION

ACCOMPANIED BY CMDR. MIKE LORD, JAGC, USN (RET.), THE MILITARY COALITION

Senator INOUE. Our next witness is Commander Virginia Torsch and Commander Mike Lord, The Military Coalition.

Commander TORSCH. Thank you, Senator Inouye. I am going to go ahead and present it, but I have got backup here if I need it.

On behalf of The Military Coalition, I would like to express our deepest appreciation to the chairman and distinguished members of this subcommittee for holding these important hearings and for allowing us to present our concerns.

The Military Coalition is committed to making Tricare a better health care plan and has been working with DOD and with Congress to remedy some of the problems even as we pursue other more comprehensive fixes to the military medical care system.

This subcommittee has been very instrumental in ensuring that many of these problems have been resolved, at least ameliorated, and the coalition would like to express its deepest appreciation for the committee's role.

One of the most critical steps towards restoring equity in the health care benefit for older retirees was taken last year, with the enactment of legislation for a medicare subvention test in the Balanced Budget Act of 1997. The coalition deeply appreciates the subcommittee's leadership in getting this important legislation enacted and is optimistic the test will prove that subvention is a win-win provision for all concerned.

However, the coalition is concerned that many subvention supporters believe subvention is the solution. This is not the case at all. In fact, even when Tricare Senior is expanded Nationwide, medicare subvention, when combined with DOD's level of effort, will only benefit medicare-eligible beneficiaries residing in the catchment areas of major military hospitals, which is at best about 30 to 40 percent of the medicare-eligible uniformed services population.

Next to lifetime health care commitment, an additional option must be provided to the have-nots and lock-outs, and that is to offer those medicare-eligible uniformed beneficiaries who cannot benefit from Tricare Senior the opportunity to enrol in the Federal Health Employment Benefit Program. We realize that one of the principal arguments being made against FEHBP-65 is its price tag to the beneficiary.

This was not a concern the coalition took likely, and before concluding that FEHBP-65 would be a viable option for beneficiaries, we conducted a health care cost survey in 1996. That survey revealed that 32.5 percent of enlisted retirees 65 and older, and 41.8 percent of officer retirees 65 or older would be economically better off with FEHBP than under their current health care coverage. That represents a significant population who would benefit from enrolling in the Federal Health Employments Benefits Program.

While the coalition would prefer to have FEHBP-65 enacted Nationwide, we recognize that the limited test may be necessary to take the guesswork out of the low cost of this option. We are therefore delighted that the Senate Armed Services Committee com-

pleted its draft of the uniformed 1999 defense authorization bill last week. They included a three-prong test of additional options for medicare-eligible uniformed services beneficiaries.

The test provides medicare-eligible retirees the opportunity to enroll in the Federal Health Employments Benefit Program at two sites, the opportunity to buy into a medicare supplemental insurance program for a premium to be determined by the Defense Department which would not exceed 75 percent of the FEHBP premium at two other sites, and the option to participate in the Department of Defense mail order pharmacy program subject to copayments and other charges deemed appropriate by the Secretary of Defense at two other sites.

The only change to this provision we ask this committee to consider is to expand the FEHBP portion of the test to perhaps include more sites.

Enactment of this Senate provision should not be too problematic for DOD, since last year in a report to Congress Dr. Edward Martin, the Acting Assistant Secretary of Defense for Health Affairs, indicated DOD would support a limited test of FEHBP-65. The coalition is anxiously awaiting DOD's proposal, but it is concerned that DOD is dragging its feet in developing the plan.

Timing is critical, because the Office of Personnel Management indicates that even with FEHBP-65 legislation enacted this summer, enrollment for the demonstration cannot begin until November of 1999, with implementation in January 2000. It would be a travesty if the test slipped beyond that date.

It is truly ironic that, despite their many sacrifices, retired service members lose their military health insurance at age 65. Please keep in mind those hit hardest are the retirees who fought in World War II, Korea, and Vietnam, and then won the Cold War. They have saved the Government many, many billions in reduced defense spending every year. These retirees have already paid the premiums for equal coverage not just in money but in service and sacrifice, including many who paid the ultimate sacrifice.

Mr. Chairman, the coalition respectfully requests and strongly recommends that this committee include funding in its markup of the fiscal year 1999 defense appropriations bill to conduct the three-pronged demonstration of FEHBP-65 for medicare supplemental with the expansion of the pharmacy benefit as provided by the Senate fiscal year 1999 Defense Authorization Act.

PREPARED STATEMENT

Mr. Chairman, once again, thank you for this opportunity to address the subcommittee. This concludes my testimony.

Senator INOUE. Thank you very much, Commander. You spoke of a 1996 survey on health care. Can you share a copy of that survey with us?

Commander TORSCH. Certainly, sir.

Senator INOUE. We would appreciate that very much.

Commander TORSCH. Thank you very much.

Senator INOUE. Thank you.

[The statement follows:]

PREPARED STATEMENT OF CMDR. VIRGINIA TORSCH

Mister Chairman and distinguished members of the committee: On behalf of The Military Coalition, we would like to express appreciation to the Chairman and distinguished members of the Senate Appropriations Committee's Subcommittee on Defense for holding this important hearing. This testimony provides the collective views of the following military and veterans organizations which represent approximately 5 million members of the seven uniformed services, officer and enlisted, active, reserve, veterans and retired plus their families and survivors.

Air Force Association	National Guard Association of the United States
Army Aviation Association of America	National Military Family Association
Association of the United States Army	National Order of Battlefield Commissions
Chief Warrant Officer and Warrant Officer Association, United States Coast Guard	Naval Enlisted Reserve Association
Commissioned Officers Association of the United States Public Health Service, Inc.	Navy League of the United States
Enlisted Association of the National Guard of the United States	Naval Reserve Association
Fleet Reserve Association	Reserve Officers Association
Gold Star Wives of America, Inc.	The Military Chaplains Association of the United States of America
Jewish War Veterans of the United States of America	The Retired Enlisted Association
Marine Corps League	The Retired Officers Association
Marine Corps Reserve Officers Association	United Armed Forces Association
	United States Army Warrant Officers Association
	United States Coast Guard Chief Petty Officers Association
	Veterans of Foreign Wars

The Military Coalition does not and has not received any federal grants, and does not have nor has had any contracts with the federal government.

INTRODUCTION

The Military Coalition (TMC) has been privileged to observe the design and implementation of Tricare from a front row seat over the last few years. The Coalition was delighted to have the opportunity to participate in the development of the Tricare benefit package and to provide extensive comments on the Tricare rules and regulations. Open dialogue between the Office of the Assistant Secretary of Defense for Health Affairs (OASD/HA) and the Coalition has allowed actual beneficiary experience to be part of the daily evaluation of the program as Tricare has been implemented throughout the country. The Coalition is very committed to making Tricare a better health care plan for all participants and has been working vigorously with DOD and Congress to remedy some of the problems with the program, even as it pursues other more comprehensive solutions to the problems burdening the military medical care system.

It is important to note, however, that despite the progress in fixing some of the problems with Tricare, to be addressed shortly, there are still significant issues that must be resolved. These issues include a lack of a uniform health care benefit, low reimbursement levels, slow claims processing and others to be detailed later in this statement.

IMPROVEMENTS IN TRICARE

In general, Tricare Prime, the HMO piece of Tricare, is relatively consistent with other managed care programs. With some notable exceptions, Tricare Prime has been well received in areas surrounding Military Treatment Facilities (MTF's). The Coalition has closely followed Congress's and DOD's progress in trying to improve the Tricare program, and would like to note some positive fixes to Tricare and to the military health care benefit in general over the last year.

Medicare Subvention Test.—One of the most critical steps toward restoring equity in the health care benefit for older retirees was taken last year with the enactment of legislation for a Medicare subvention test in the Balanced Budget Act of 1997. The provision calls for a test of Medicare subvention (to be known as Tricare Senior) for three years at six sites around the country to include: Keesler AFB, Biloxi, MS; Ft. Carson and the Air Force Academy, Colorado Springs, CO; Madigan Army Medical Center, Ft. Lewis, WA; Naval Medical Center, San Diego, CA; Dover Air Force Base, Dover, DE; and a joint site including Brooke Army Medical Center and Wilford Hall Medical Center, San Antonio, TX, Ft. Sill, Lawton, OK; and Sheppard

AFB, Wichita Falls, TX. The Coalition deeply appreciates this Subcommittee's leadership in getting this important legislation enacted and is optimistic that the test will prove that subvention is a win-win provision for all concerned.

Despite this successful outcome, the Coalition remains concerned that the demand for enrollment in Tricare Senior will far exceed the capacity. Congress has only allocated \$50 million in Medicare funding for fiscal year 1998, which will cover approximately 10,000 additional beneficiaries at the test sites. Although a considerably larger number will receive care in the test facilities because DOD has agreed to continue its prior level of service to Medicare-eligibles without reimbursement, there is considerable uncertainty as to the maximum program capacity. The Coalition is also concerned that beneficiaries who became Medicare-eligible before December 1, 1997, but who never used a uniformed services health care facility as a Medicare-eligible beneficiary before that date are ineligible to participate in the test. Many of these individuals never used an MTF because they could not get appointments or did not require medical care. It is not fair to penalize these individuals by forever denying them the opportunity to enroll in Tricare Senior. The Coalition recommends that when Medicare subvention is implemented nationwide, all Medicare-eligible uniformed services beneficiaries be allowed to enroll in Tricare Senior regardless of any prior usage of the military health care system.

Expansion of Tricare Prime Outside of Catchment Areas.—Last year the Coalition expressed concern that Tricare Prime needed to be expanded to all areas where there are significant numbers of uniformed services beneficiaries (including retirees) and where there are sufficient numbers of civilian providers to establish a civilian network of providers under Prime or Extra (like base closure sites). The Coalition is pleased to see that Section 712 of the Fiscal Year 1998 Defense Authorization Act requires that DOD prepare a plan to expand Tricare Prime to noncatchment areas. The Coalition is urging DOD to implement this plan as soon as feasible.

Waiver of Deductibles, Copayments and Annual Fees for Family Members of Active Duty Members Assigned to Remote Duty Locations.—The Coalition has also been concerned that active duty members assigned as recruiters, ROTC instructors, full-time advisors to reserve units, or to duty stations outside Tricare Prime catchment areas do not have the option of enrolling their family members in Tricare Prime with the lower co-payments. These families have been unfairly burdened with the higher cost of care under Tricare Standard. Therefore, the Coalition was pleased to see that Section 712 of the Fiscal Year 1998 Authorization Act also allows the Secretary of Defense to evaluate the feasibility and cost-effectiveness of either providing a health care stipend or a reduction in Tricare Standard cost-sharing for family members of these active duty members. It is our hope that DOD will make a decision and implement this plan in a timely manner.

The Coalition was also pleased that Section 731 provides a transitional program that requires DOD ensure active duty members assigned to remote locations have the same timely access to care as those who are assigned closer to a military treatment facility. DOD must allow active duty members to receive care under Tricare Standard (CHAMPUS) without any copayments or deductibles until Tricare Prime becomes available to that area.

Portability and reciprocity for Tricare Prime enrollees.—The Coalition expressed concern last year that Prime enrollees could not transfer their enrollment from one Tricare region to another, or get care in a different Tricare region than the one in which they were enrolled. The Coalition is very pleased to see that DOD has issued a policy memorandum implementing portability of Prime enrollment, both for active duty family members and for retirees. The Coalition is aware, however, that there are still a few problems in actually making Prime fully portable, and we are urging DOD Health Affairs to work out these problems as quickly as possible. The Coalition is also urging DOD to speed up its efforts on reciprocity of care between Tricare regions.

CONCERNS REMAIN HOWEVER

Although great strides have been made by DOD and Congress in fixing some of the more egregious problems with Tricare, the Coalition remains concerned about problems we noted last year that still have not been addressed. These problems are detailed in Attachment A, and we urge this Committee to work with the Senate Armed Services Committee to implement our suggested fixes.

The one problem we do want to concentrate on however, is that Tricare does not provide a uniform health care benefit for all military beneficiaries, particularly for those who are Medicare-eligible. Earlier the Coalition expressed its appreciation and optimism about Medicare Subvention. There is no doubt that it is a critical step toward honoring the health care commitment. Having said that, the Coalition is con-

cerned that many Subvention supporters believe Subvention is “the solution.” This is not the case at all. In fact, even when Tricare Senior is expanded nationwide, Medicare Subvention, when combined with DOD’s level of effort will only benefit Medicare-eligible beneficiaries residing in the catchment areas of major MTF’s.

The stark reality is that Subvention will only accommodate a maximum of 30 percent to 40 percent of Medicare-eligible uniformed services beneficiaries. Thus, to honor the lifetime health care commitment, another option must be provided.

Before turning to the Coalition’s specific recommendation, it’s important to address a myth shared by the American public—and many in Congress—that uniformed services retirees have better-than-average health care benefits. This is an unfortunate misperception from decades ago. In fact, as indicated in the following charts, DOD is the largest single employer in the country, but ranks in the bottom 11 percent of large American employers (10,000 or more employees) in terms of the health care coverage it provides to Medicare-eligible uniformed services retirees.

The 1997 Hay Benefits Report (one of the nation’s most respected benefits survey firms), indicates even smaller firms substantially subsidize Medicare supplemental insurance for their retirees. As shown below, the larger the firm, the greater the subsidized benefit.

EMPLOYER-FUNDED HEALTH COVERAGE (FOR MEDICARE-ELIGIBLE RETIREES)

	Firm size					
	<0.5K	0.5–1K	1–5K	5–10K	10K +	All
Firms Surveyed	121	69	190	55	91	526
Percent Providing at Least Some Subsidy	71	78	79	85	89	80
Percent Paying at Least 50 Percent of Premium	67	70	71	85	85	74

Note: DOD Falls within Bottom 11 percent of Large Firms Nationwide.

Source: 1997 Hay Benefits Report.

A more appropriate comparison is to pit DOD Medicare-supplemental coverage for military retirees with that offered by the largest corporate employers to their retirees and what the federal government provides all other federal retirees, except those from the uniformed services. As the following chart demonstrates, uniformed services retiree health coverage is a very distant last.

“BIG FIVE” CIVILIAN RETIREE COVERAGE

Employer	Employer Prem Pmt (percent)	Family Deductibles	Retiree Cost Share	Other Benefits ¹
GM	80	\$600	0	Rx, D, V.
Ford	100	\$250	20 percent/\$500 Cap	Rx, D, V.
IBM	100	\$250	20 percent	Rx, D, V. (0 INP)
Exxon	95	\$500	20 percent/\$2,500 Cap	Rx, D.
Fed Gov’t (Civ)	72	(¹)	Nominal	Rx, D.
Fed Gov’t (Mil)	0	(²)	.....	None. ³

¹ Often Waived.

² Retiree Pays Everything, Medicare Doesn’t.

³ Some get Space-A care; civilian plans cover all retirees.

Rx—Prescriptions; D—Dental; V—Vision.

As the Coalition has testified before, we are convinced that the fair, equitable and cost effective solution is to offer those Medicare-eligible uniformed service beneficiaries the opportunity to enroll in the Federal Employees Health Benefits Program (FEHBP–65). In this regard, Mr. Chairman, the Coalition is extremely appreciative of this Subcommittee’s effort to have DOD submit FEHBP–65 test legislation to Congress this year. Although we are extremely reluctant to settle for less than nationwide implementation of FEHBP–65, we recognize that a test is the only way to dispel the numerous misperceptions about the potential dire consequences of opening FEHBP to the uniformed services community. For example:

- Estimates by the Congressional Budget Office (CBO) that FEHBP-65 nationwide carries a price tag of about \$1.7 billion annually;
- Assertions that adding uniformed services beneficiaries to the FEHBP could have an adverse impact on the premiums paid by federal civilian participants;
- Predictions that service beneficiaries would increase their consumption of Medicare benefits;
- Concerns that the lack of an elderly and infirmed patient base in military hospitals could impair medical readiness; and
- Speculation that FEHBP would be unaffordable for enlisted members and other low income beneficiaries.

The Coalition does not agree that any of these concerns should be show-stoppers and would like to discuss them in turn.

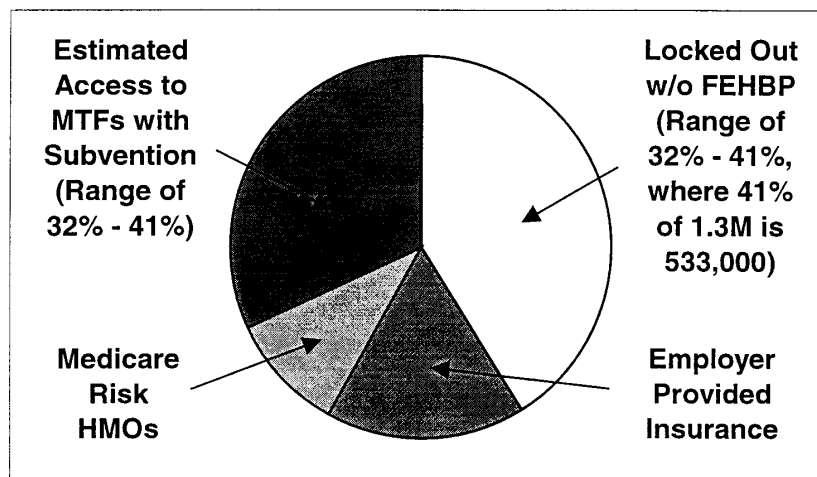
TAKING THE GUESSWORK OUT OF FEHBP-65 COSTS

We turn first to what we believe are grossly overstated CBO cost estimates. For example, in doing its analysis, the CBO ignored several health care options available to uniformed services beneficiaries which the Coalition believes would militate against their participation in FEHBP-65. In arriving at its \$1.7 billion cost estimate, CBO assumed that 70 percent of the 1,300,000 eligible beneficiaries would participate in FEHBP-65 if offered. This estimate ignores:

- The 30-40 percent of the Medicare-eligible uniformed services population who would be accommodated by Medicare Subvention (including DOD's level of effort);
- The estimated 10 percent who are enrolled in Medicare at-risk Health Maintenance Organizations (HMO's) and would likely remain in these programs;
- The additional 17 percent who already participate in FEHBP or private sector insurance plans that are equal to or better than FEHBP. (Source 1997 GAO Report);
- Others who have access to VA facilities—a trend that could increase if VA Subvention is enacted; and
- Inertia and cost-conscious decision-making. Human nature being what it is, many retirees are likely to be satisfied with the status quo because of cost concerns or an aversion to shifting to a new program.

In its analysis as shown below, the Coalition assumed a conservative 32 percent would participate in Subvention.

Sources of Care: The Whole Story



Thus when Medicare subvention, Medicare at risk HMO's and private sector coverage are considered, the residual population of FEHBP-eligibles is 533,000. The Coalition also considered data from a 1997 GAO report that indicated about 30 percent of the Service beneficiaries have Medigap supplemental policies and would likely switch to FEHBP. Further, TMC assumed that an additional 100,000 beneficiaries

without supplemental insurance would also participate—for a range of potential costs of \$280 million to \$452 million annually—far less than the CBO estimate.

NO IMPACT ON FEDERAL CIVILIAN PREMIUMS

Since a separate risk pool would be established, there would be no impact on federal civilian premiums, while there is every likelihood the cost to DOD would be further reduced. One fundamental reason is that the vast majority of uniformed services beneficiaries are covered by Medicare. According to CBO, when FEHBP is combined with Medicare Part B, the health care outlays for FEHBP insurers are only 70 cents for every dollar of premiums paid. CBO estimates that for individuals age 65 and older who are not eligible for Medicare—a phenomenon more prevalent among federal civilian retirees than military—FEHBP insurers pay out \$2.50 for every dollar of premiums paid.

MEDICARE IMPACT WILL BE NEGLIGIBLE

The CBO estimate incorporates two assumptions about retiree behavior: (1) service retirees will forego care in MTF's to take advantage of their Medicare benefit supplemented by FEHBP; and (2) enrollment in FEHBP in non-prime areas will result in increased use of Medicare by beneficiaries (because if they are paying premiums for FEHBP, they might as well get their money's worth).

The first prediction is tied to CBO's inability to recognize (because of scoring groundrules) that when combined with Tricare Prime, Tricare Senior will accelerate the demise of Space A care and force retirees to use Medicare. Thus, the Medicare impact will occur without FEHBP.

There is no empirical data to substantiate CBO's second assumption. A test of FEHBP-65 will eliminate the guesswork.

MEDICAL READINESS

This misconception about FEHBP-65 stems in part because of DOD concerns that FEHBP, if offered to all retirees, would erode the patient base that is critical to medical readiness. In fact, there will be no impact on readiness because Medicare Subvention (Tricare Senior) will provide all the patients needed to meet the clinical training and professional experience needs of physicians, corpsmen and other ancillary medical personnel.

THE AFFORDABILITY ISSUE

This is not a concern the Coalition took lightly, and before concluding that FEHBP-65 would be a viable option for its beneficiaries, the Coalition conducted a health care cost survey in 1996. That survey revealed that 32.5 percent of enlisted retirees 65 and older and 41.8 percent of officer retirees 65 and older would be economically better off with FEHBP than under their current health care coverage. That represents a significant population who would benefit from FEHBP. The proof is in the pudding and a test would help corroborate the survey results.

Mr. Chairman, uniformed services retirees receive considerable literature from organizations like the Coalition extolling the health care advantages Federal civilian retirees and retirees from large corporations have when they become eligible for Medicare. Military retirees are well aware that DOD and other agencies in the Federal government will spend more than \$4 billion in fiscal year 1998 to provide federal civilian retirees health care that is second to none. Military retirees do not understand, and neither do we, why they should not be given the opportunity to participate in this extraordinary program as well. Therefore, The Military Coalition is seeking your support to appropriate funding to allow Medicare-eligible uniformed services beneficiaries, including those eligible for Medicare due to disability, to enroll in the Federal Employees Health Benefit Plan (FEHBP), the health care benefit available to 9.6 million Federal employees and annuitants, including members of Congress. The Coalition is of the firm belief that Medicare-eligible uniformed services retirees have earned the right to participate in FEHBP-65 and that it is a viable means of satisfying the lifetime health care commitment. We believe our members would consider this option a reasonable alternative to the virtually non-existent military health care because FEHBP premiums are less expensive than most Medicare supplemental policies, and most FEHBP plans provide better coverage, including a prescription drug benefit, at less cost than Medicare supplements.

For the last two years, the Coalition has been working assiduously with Congress to get legislation enacted for FEHBP-65. In early 1997, Representative Moran introduced legislation for FEHBP-65 nationwide (H.R. 76) and Senator Warner introduced the Senate companion bill (S. 224). However, because of the less than enthu-

siastic support accorded to those bills by Congress and DOD, the Coalition believes the only way to convince the skeptics is to conduct a test of FEHBP-65 along the lines spelled out in S. 1334. This bipartisan bill, which now has 58 cosponsors (236 for its House companion bill, H.R. 1766), would authorize a demonstration of FEHBP-65 in two geographic areas—one including a Tricare Prime area with military treatment facilities and the other without such facilities—and would include no more than 25,000 Medicare-eligible service beneficiaries in each area. In other words, approximately 50,000 beneficiaries would be given the opportunity to enroll during the demonstration and, based on the participation rate, accurate data could be derived to predict the cost of extending the program nationwide. CBO has scored this initiative as costing about \$68 million each year. The cost would actually be less the first year because DOD's share of premiums would be paid for only nine months rather than a full year. If need be, for better data collection, the test could be conducted at more than two areas, while controlling costs by limiting the opportunity to participate to the 50,000 beneficiaries contemplated by S. 1334.

The demonstration proposed by S. 1334 is consistent with guidance in the Fiscal Year 1998 Defense Appropriations Act which directed DOD to submit FEHBP test legislation to Congress this year. This should not be too problematic for DOD because last year in a report to Congress, Dr. Edward Martin, the Acting Assistant Secretary of Defense for Health Affairs, indicated DOD would support a limited test of FEHBP-65 in non-Prime areas. The only difference between S. 1334 and Dr. Martin's idea is S. 1334 would conduct the demonstration in a Tricare Prime catchment area. We agree with the approach in S. 1334 that the only way to get meaningful data is to put FEHBP in a head-to-head contest with Tricare Senior to see how many beneficiaries would opt out of care in an MTF to enroll in FEHBP. It's our guess that there will always be more applicants for Tricare Senior than the system can accommodate. But, with FEHBP to fall back on, DOD could fulfill its commitment to servicemembers in a reasonable way.

It is truly ironic that, despite their many sacrifices, retired servicemembers lose their military health insurance at age 65. Please keep in mind that those hit hardest by Congress' and DOD's inaction are the retirees who fought in World War II, Korea and Vietnam and then won the Cold War. The latter victory alone is saving the government many, many billions in reduced defense spending every year. These retirees have already paid the premiums for equal coverage, not just in money, but in service and sacrifice, including many who paid the ultimate sacrifice. FEHBP-65 is needed to cover their widows as well.

The Coalition is anxiously awaiting DOD's proposal, but is concerned that DOD is dragging its feet in developing the plan. Timing is critical because the Office of Personnel Management indicates that even with FEHBP-65 legislation enacted this summer, enrollment for the demonstration cannot begin until November 1999 with implementation in January 2000. It would be a travesty if the test slipped beyond that date.

Mr. Chairman, the Coalition respectfully requests and strongly recommends that this committee include funding to conduct a demonstration of FEHBP-65 in its markup of the fiscal year 1999 Defense Appropriations Bill.

OTHER HEALTH CARE CONCERNS

The Coalition would like to briefly mention two other concerns that are closely related to the Tricare program. First, the almost 400 percent increase in premiums last year for the Continuing Health Benefits Program essentially leaves military beneficiaries without an affordable COBRA benefit. The Coalition strongly recommends the premiums for CHBP be reduced to a more affordable level for uniformed services beneficiaries leaving military service.

Second, DOD's insistence that all health care programs, including dental plans, carry the Tricare name, has created confusion for many beneficiaries. The Coalition is especially concerned about the retiree dental plan which is totally unrelated to the Tricare program. This plan is not subsidized by DOD, but is paid for entirely by the retiree. Further, the dental plan is open to retirees of all ages, including those who are eligible for Medicare. However, the Coalition has received numerous complaints that health care benefits advisors and even some DEERS employees have told Medicare-eligible beneficiaries they could not participate in the retiree dental plan because it was a Tricare plan and therefore only open to CHAMPUS-eligible beneficiaries. The Coalition requests that this Committee work with the Senate Armed Services Committee to exert pressure on DOD to drop the Tricare name from this dental plan so that Medicare-eligible beneficiaries are not inadvertently discouraged from participating in this very important program.

CONCLUSION

In conclusion, The Military Coalition is cognizant that many of the initial problems with Tricare (especially the Prime program) resulted from growing pains as Tricare was implemented throughout the country. This Committee has been instrumental in ensuring that many of these problems have been resolved or at least ameliorated, and the Coalition would like to express its deepest appreciation for the Committee's role.

Nevertheless, Tricare remains seriously flawed in that it does not provide a uniform health care benefit for all military beneficiaries. This fundamental flaw must be remedied through Congressional action as soon as possible with enactment of a test for FEHBP-65. The Coalition is also very concerned about the increasing difficulty that both the Prime and Standard programs seem to be having with locating and retaining quality health care providers. The Coalition urges this Committee to take immediate measures to strengthen both the Tricare Prime and Standard (CHAMPUS) options so that Tricare becomes a viable health care benefit.

Mr. Chairman, in closing, we wish to express our profound appreciation to you and this Subcommittee for the opportunity to present our views on these critically important topics. We will be glad to answer any questions you may have.

ATTACHMENT A

TRICARE PRIME PROBLEMS

Tricare does not help Medicare-eligible beneficiaries residing overseas. These individuals are in a Catch-22 situation. They cannot enroll in Tricare Prime because they are no longer eligible for CHAMPUS and they cannot use Medicare because that program does not operate in foreign countries. Their only alternative is to rely on space available care in the military hospitals which is becoming increasingly difficult to find since many overseas medical facilities have been closed. Unfortunately, Medicare subvention will not help these beneficiaries.

In addition to the problems faced by Medicare-eligible retirees overseas, the Coalition is also concerned by the delay in allowing CHAMPUS-eligible retirees to enroll in Tricare Prime overseas. The Coalition recommends that DOD Health Affairs expedite the enrollment of these individuals.

Tricare Prime enrollees who do not reside in a catchment area and are unable to enroll with a military primary care manager (PCM) have a different Prime benefit than those enrollees residing in catchment areas who have a military PCM. This situation has been further exacerbated by the alternative financing method which will be implemented in Tricare Regions 1, 2 and 5. Tricare Prime enrollees in noncatchment areas are assigned to civilian PCM's and receive most of their care in the civilian Prime network with copayments for all visits and services, while enrollees in catchment areas have a greater chance of being assigned to a military PCM's and receiving care in MTF's with no copayments. The alternative financing method further encourages a military commander to ensure that his Prime enrollees (those assigned to a PCM in his facility) receive first priority for care in his MTF since he now assumes financial risk for these Prime enrollees. This incentive could potentially lock out any Prime enrollee with a civilian PCM from receiving care in the MTF. The Coalition is concerned that the alternative financing method considerably worsens the lack of a uniform health care benefit, by effectively creating two distinct Tricare Prime plans—an MTF Prime, where enrollees receive most of their treatment in MTF's with no co-payments; and a civilian Prime, where enrollees receive their care through civilian providers with the requisite copayments.

Although the House mark of the Fiscal Year 1998 Defense Authorization Act included report language expressing concern over the alternative financing method and requesting DOD test this method in only two Tricare regions before extending it throughout the rest of the country, the final Authorization Act did not address this issue. The Coalition recommends a thorough evaluation of the alternative financing methodology to determine its impact on the uniformity of the Tricare Prime benefit before allowing DOD Health Affairs to expand this methodology to the rest of the Tricare regions. The Coalition also requests the Committee's assistance in ensuring that Prime enrollees in noncatchment areas have the same equal opportunity for care in an MTF as a Prime enrollee in a catchment area with a military PCM.

Access standards for Tricare Prime are still not being met in most Regions. The Coalition continues to document numerous instances in most Tricare Regions where access standards for time and for distance have not been met. A June 1996 GAO report on Tricare noted that DOD did not have a system for tracking access data. The GAO report stressed that such a system was extremely important for measur-

ing how well Tricare is meeting this key performance goal. Recent briefings from DOD officials on their new quality assurance and utilization management contracts have not reassured the Coalition that DOD will measure access data through this new contract. The Coalition recommends DOD establish a method of tracking access data as recommended by GAO. The Coalition also requests DOD be directed to give immediate attention to all reports of access problems.

Tricare Prime enrollees are still occasionally charged Tricare Standard fees by some civilian health care providers such as anesthesiologists and pathologists. These providers are not part of the Tricare Prime network, but are sometimes part of the health care team at a civilian hospital that is part of the Tricare Prime network. Tricare Prime enrollees should not be subjected to these "hidden" fees. If an enrollee receives care from a civilian hospital that is part of the Tricare Prime network, the enrollee should pay only the Tricare Prime co-payment of \$11 a day and no more.

Tricare managed care contractors have acknowledged the problem and for the most part have tried to ensure that all those who deliver care to Prime enrollees participate in the Prime network. The Coalition still believes, however, that DOD Health Affairs should revise its regulations to stipulate that if an enrollee receives care from a civilian hospital that is part of the Tricare Prime network, the enrollee will only be subjected to the Tricare Prime co-payment of \$11 a day.

Tricare Prime enrollees are still occasionally being referred to non-network providers, thus invoking point of service charges which include a \$300 deductible and a 50 percent copay. The point of service charges have also been applied when a Prime enrollee has been seen by a network provider who happens to be on call that day, but is not the enrollee's primary care manager, even though the enrollee did not request to be seen by that provider.

DOD and the contractors have acknowledged the problem and have made great progress in correcting it. However, the Coalition believes a more permanent solution would be to have a Tricare Prime enrollee sign a form that he or she is knowingly choosing to exercise the point of service option and realizes the higher copayments and deductibles he or she will incur. This will eliminate situations where the Tricare Prime primary care manager mistakenly refers the enrollee to a non-network provider.

Tricare Prime enrollees are paying the lion's share of the cost of mental health services. The Coalition was appalled to learn that Prime enrollees are paying 44 percent to 55 percent of the allowed amount for mental health outpatient visits in some Tricare Regions. At the end of Attachment A is a copy of a provider's explanation of benefits. On pages one and two are the reimbursement rates for active duty and retired Prime enrollees. The total allowed amount for the visit is \$45. Tricare pays \$25 of that for an active duty Prime enrollee, and the enrollee pays the rest (\$20). For a retired Prime enrollee, Tricare pays only \$20 and the retiree must pay \$25. Pages three and four show the provider's reimbursement and beneficiary copayment for a Tricare Standard beneficiary. Note the provider receives \$102 per visit and the active duty beneficiary pays \$15.30 per visit and the retiree \$20.40 per visit. The copayments under Tricare Standard for both active duty and retired beneficiaries are less than under Tricare Prime.

The Coalition urgently requests that an investigation of the prevalence of this sort of disparity in payment be conducted for other areas of the country, and for other health care services. The Coalition does not believe it is the intent of Congress that Prime enrollees pay almost half of the cost of mental health care.

DOD has not established an effective Ombudsman Program in every Tricare Region. The Coalition has received numerous complaints that beneficiaries are having a difficult time getting through to the Tricare Service Center or Health Benefits Advisor to get questions answered about Tricare benefits, or to resolve Tricare Standard (CHAMPUS) claims. Frequently, beneficiaries become so frustrated they call various Coalition associations in desperation because they feel they have no other place to go to get their questions answered. The Coalition strongly recommends that DOD be directed to establish an Ombudsman office staffed by independent parties (not DOD or the managed care contractor) in every Tricare region to serve as the advocate for the beneficiary.

Improve quality control oversight of Tricare managed care support contracts, to include better monitoring of patient satisfaction, assessment of clinical outcomes, oversight of provider networks, and adherence to access standards in addition to utilization management. The Coalition remains concerned that DOD continues to focus on utilization management as the mainstay of its quality control program, while overlooking other equally important measures of quality such as adherence to access standards, patient satisfaction and most importantly, clinical outcomes. The Coalition recommends a continued evaluation of DOD's progress in implementing a more complete quality control program.

The Coalition continues to hear about problems with Tricare Prime network providers. Directories of Prime providers are still not accurate—in some cases the provider either does not accept Prime patients (and never did), or has closed his practice to new Prime patients; the offices of some network providers are located in undesirable, and even unsafe, parts of town; and there have been reports of a dearth of Prime providers, especially specialists. The Coalition is particularly concerned even though standard CHAMPUS rates are the same as Medicare for most health care services, most of the Tricare managed care support contractors have negotiated Tricare Prime reimbursement rates with network providers that are even lower than Medicare. Although providers are not happy with the discounted rates, most providers have accepted them. However, in the last year, some major provider groups have dropped out of Tricare Prime (including a 250-member provider group in Colorado and the entire provider network of the Medical University of South Carolina), and we are concerned this trend may accelerate. The Coalition urges Congress to take immediate steps to increase the reimbursement rates for Prime providers in order to attract and retain quality health care providers.

PROBLEMS WITH TRICARE STANDARD (CHAMPUS)

Tricare Standard (CHAMPUS) reimbursement levels are still much too low to attract quality health care providers. There are also unreasonable delays in reimbursement for Tricare Standard (CHAMPUS) claims. The Coalition has continuously expressed its concern over the low CHAMPUS reimbursement rates. Beneficiaries have reported that in the more rural areas, (and increasingly even in urban areas), where providers do not depend on a military patient base, health care providers have become increasingly unwilling to accept Tricare Standard (CHAMPUS) patients at all.

It is difficult to estimate the impact of the lower rates on access to care. Although the Secretary of Defense has the authority to waive the CHAMPUS Maximum Allowable Charge (CMAC) if it is affecting access, the Tricare Support Office (TSO) has never requested such a waiver, claiming it has never adequately documented access problems. However, this is akin to a self-fulfilling prophecy because the TSO only reviews CHAMPUS claims where the only data provided are from those physicians or other health care providers who are willing to accept Tricare Standard reimbursement levels. The TSO does not document how far the beneficiary may have had to drive to find a provider, how many times he was turned away before he was able to find a provider; or what rates are charged by providers who refuse to accept Tricare Standard.

The low reimbursement rates are just part of the problem. By themselves, low rates may not be a deterrent to care. However, low rates combined with the “hassle” factor in filing claims and delays in reimbursements have proven to be too much in some cases for health care providers who now simply refuse to accept CHAMPUS patients at all. The Coalition has also received numerous complaints from its members who, when filing their own CHAMPUS claims, had to resubmit the claim two or three times before receiving payment.

Although the Fiscal Year 1998 Defense Authorization Act has a provision directing DOD to make CHAMPUS reimbursement rates more consistent with Medicare, the Coalition has heard that DOD is delaying implementation of this provision. The Coalition would like a definitive date as to when DOD is going to increase substandard CHAMPUS rates to the level of Medicare.

Another significant problem that must be addressed is the delays in reimbursements. The Coalition urges Congress to exert pressure on DOD to simplify the claim form and exercise greater oversight to significantly reduce unwarranted delays in reimbursements.

The Coalition was very pleased to see that Section 737 of the 1998 Defense Authorization Act eliminated DOD's policy that required all providers to file CHAMPUS claims. We are particularly pleased with DOD's prompt compliance.

However, allowing beneficiaries to resume filing their own claim forms has presented yet another problem. Several years ago DOD required non-availability statements (NAS) for certain outpatient procedures. The outpatient NAS requirement was repealed on September 23, 1996. In its place pre-authorization for these procedures, and others that have subsequently been added, was instituted. Since DOD does not even print enough Tricare Handbooks for the beneficiary population, much less send them out to beneficiaries, family members have no indication that they must get pre-authorization for certain procedures. The Coalition has heard from beneficiaries with substantial unpaid claims. These beneficiaries have sought care from nonparticipating Tricare providers (as is their right under the Tricare Standard option), paid the bill, submitted their claim to Tricare, only to be told that since

pre-authorization was not sought, the procedure will not be covered. This has not only affected families who live near military hospitals, but to families stationed in remote areas.

The Coalition understands that it is normal practice for employers or insurance companies to provide covered beneficiaries with information regarding the benefits and limitations of their health care plans. Thus we believe that if DOD intends to subject Tricare Standard beneficiaries to restrictions on their receipt of health care, at the very least it should provide them with up to date Tricare Standard Handbooks.

The enforcement of the 115 percent billing limit in cases of third party insurance, has resulted in loss of reimbursement to beneficiaries. Last year, DOD's policy of employing the 115 percent limit in the case of third party reimbursement had the effect of shifting CHAMPUS' payment approach from "coordination of benefits" to "benefits less benefits." Before the 115 percent limit was enforced, a third party insurer would pay first, then CHAMPUS would pay the balance up to what CHAMPUS would have paid had it been first payer. Now that the 115 percent limit has gone into effect, CHAMPUS will not pay anything if the third party insurer paid an amount in excess of the 115 percent billing limit. So if a third party insurer would pay 80 percent of a physician's bill of \$500 (or \$400), but CHAMPUS would only have paid 115 percent of its maximum allowable charge of \$300 (or \$345), CHAMPUS will pay nothing toward the balance of \$100 that the patient must pay. Under the previous "coordination of benefits" method, CHAMPUS would have paid the difference as long as it did not exceed the amount payable under CHAMPUS. We have repeatedly expressed our concern that the shift in policy unfairly penalizes beneficiaries with other health insurance plans. CHAMPUS reimbursement amounts have been steadily decreasing over the years, and almost all other civilian insurance plans are more generous than CHAMPUS in their payments to providers.

The House mark of the Fiscal Year 1998 Defense Authorization Act contained report language that urged DOD to enforce a requirement that health care providers charge CHAMPUS beneficiaries no more than 115 percent of CMAC rate, or that CHAMPUS continue to pay for health care services when paying as second payer to other health insurance under DOD's previous policy. Unfortunately the committee report was not addressed in the final Act. The Coalition recommends this issue be revisited in the Fiscal Year 1999 Defense Authorization and Appropriation Acts to include statutory language to re-establish "coordination of benefits" as the DOD payment methodology.

The Tricare Standard (CHAMPUS) catastrophic cap out of pockets is still \$7,500 for retirees, which is much higher than other civilian fee-for-service plans which traditionally set limits between \$2,000 and \$3,000. The Coalition strongly recommends this cap be reduced to \$3,000.

Beneficiaries who choose Tricare Standard still have to obtain non-availability statements from the MTF before seeking inpatient care from civilian providers. While the Coalition recognizes that DOD is trying maximize savings in Tricare by encouraging the use of military providers, beneficiaries who incur the higher costs associated with Standard do so because they either want complete freedom of choice of providers or cannot get into Tricare Prime. The Coalition strongly recommends that all NAS requirements be eliminated for Tricare Standard.

STATEMENT OF DR. DONALD S. BURKE, MEMBER OF LEGISLATIVE TASK FORCE, AMERICAN SOCIETY OF TROPICAL MEDICINE AND HYGIENE

Senator INOUE. Our next witness, Dr. Donald Burke, member of the Legislative Task Force, American Society of Tropical Medicine and Hygiene.

Dr. Burke, welcome, sir.

Dr. BURKE. Thank you, Senator Inouye. I am here to represent the American Society of Tropical Medicine and Hygiene, a society of 3,000 researchers and tropical medicine practitioners in the United States. The Department of Defense medical research programs play a critical role in our Nation's infectious disease efforts as you know, sir. Working with other U.S. institutions, our military institutions have worked to help us understand, diagnose, and treat infectious diseases such as malaria, dengue fever, cholera, AIDS, and diarrheal diseases.

There are two particular aspects I want to take these moments to emphasize. The first are the overseas laboratories of the U.S. military, the fixed facilities in Thailand, Indonesia, Egypt, Brazil, Kenya, and Peru. These labs are strategically located in regions of the world where the threats from infectious diseases are genuine. They serve as critical sentinel alerting stations.

The DOD has recently initiated a disease surveillance system for emerging diseases worldwide. However, the current funding for this program has not been sufficient to meet the needs of this program. The Tropical Medicine Society urges the committee to provide an estimated \$7 million in new research and development funds that will allow the DOD to fully develop and operate this surveillance network.

Another problem is that these laboratories have not had attention to their infrastructure. In the last 2 years the Navy Medical R&D Command had a 40-percent reduction in their investment in their overseas laboratory infrastructure dollars. These overseas laboratories are too important to be allowed to deteriorate.

The second major area of emphasis is in vaccine research and development. Vaccines are the single most cost-effective means for protecting U.S. military against infectious diseases during deployment. A number of vaccines have been successfully developed by the military, and there is excellent progress on some, like malaria, dengue, and good work being done on AIDS.

However, a number of promising vaccines such as meningococcus, hantavirus, and hepatitis E vaccines are in the pipeline but are not being pursued for lack of funding. The Tropical Medicine Society urges the subcommittee to provide sufficient resources to move these vaccines into clinical trials. These trials will impact not only military preparedness, but will advance public and private interests as well.

Let me conclude by saying that the Tropical Medicine Society requests your continued support of the DOD infectious disease research program. This is a critically important area, given the resurgence of emergent new diseases. However, there are many areas of unmet need and opportunity still to be addressed.

PREPARED STATEMENT

With the shrinking U.S. military, coupled with the need to respond to conflict anywhere in the world, it is more important than ever to preserve this combat readiness. Like other military research, medical research cannot easily be restarted when the need arises.

Thank you very much, sir.
[The statement follows:]

PREPARED STATEMENT OF DONALD S. BURKE

Mr. Chairman and members of the Committee, thank you for the opportunity to testify today. My name is Donald Burke and I am a Professor of International Health in the School of Hygiene and Public Health at Johns Hopkins University. I am pleased to present testimony on behalf of the American Society of Tropical Medicine and Hygiene (ASTMH) in support of Department of Defense (DOD) medical research programs.

ASTMH is a professional society of 3,500 researchers and practitioners dedicated to the prevention and treatment of infectious and tropical infectious diseases. The

collective expertise of our members is in the areas of basic molecular science, medicine, vector control, epidemiology, and public health. ASTMH has had the privilege of testifying before this Subcommittee on several occasions, and we hope that our recommendations are helpful to you in determining the annual funding levels for DOD's infectious disease research programs.

DOD medical research programs play a critical role in our nation's infectious disease efforts. Working with other U.S. public health agencies, DOD scientists at the U.S. Army Research Institute for Infectious Diseases (USAMRIID), the Walter Reed Army Institute of Medical Research (WRAIR), and the U.S. Naval Medical Research Institute (NMRI) are helping us to better understand, diagnose, and treat infectious and tropical diseases such as malaria, dengue fever, cholera, AIDS, and diarrheal diseases.

The threat these diseases pose to U.S. military personnel is not new. During the Vietnam War, two-thirds of hospital admissions were due to infectious diseases. More recently, twenty-nine percent of soldiers deployed in Somalia in 1993 got malaria, making it the number one cause of all hospital admissions in Somalia. U.S. soldiers will continue to be deployed in regions of the world where the threat of infectious disease exists.

Military medical research has, over the years, been very successful in providing the armed forces with a series of new vaccines, new prophylactic drugs, and other preventive medicine measures. However, emerging infectious diseases are a continuing threat to military effectiveness during deployments. Infectious disease research support by DOD continues to be essential to protect our fighting men and women from infectious diseases through the development of vaccines and preventive medicines, and to enable infected personnel to return to duty through the development of effective therapies.

These programs also fill a critical need by helping to identify endemic and epidemic disease threats throughout the world, assisting not only U.S. military needs but other U.S. health and humanitarian needs as well. DOD technical expertise is consistently sought as organizations such as the World Health Organization and the Pan American Health Organization are faced with new infectious disease outbreaks around the globe.

Sentinels Around the Globe

I would like to take a moment to focus on one aspect of the U.S. military infectious disease research program which deserves special mention—the overseas laboratories. The U.S. Army and the Navy currently support six overseas laboratories in Thailand, Indonesia, Egypt, Brazil, Kenya, and Peru. These labs are strategically located in regions of the world where the threat from existing and emerging infectious and tropical diseases is the greatest. They serve as critical sentinel stations alerting both the military and public health agencies to dangerous infectious disease outbreaks and increasing microbial resistance. Because they are located close to the source, laboratory personnel can be mobilized to respond quickly to potential problems. For example, recently a U.S. Navy scientist responded to a call from the World Health Organization during an outbreak of severe hemorrhagic fever in Kenya. This laboratory in the region had been conducting research on Rift Valley fever and could respond quickly and effectively to provide assistance to local authorities with diagnosis, prevention and control measures.

A recent report by the Institute of Medicine (IOM) entitled, "America's Vital Interest in Global Health", highlights the leadership role the U.S. can play in expanding the scope of global surveillance efforts. The report cites the cost-effectiveness of surveillance as well as the devastating cost of our failure to support global disease surveillance in the face of emerging infectious diseases. The IOM recommended that the U.S. take advantage of existing field research laboratories and expand their scope and linkage to other global health organizations. U.S. technical expertise and communications advantages makes us uniquely suited to play a leadership role in this effort. In fact, the DOD has recently initiated a disease surveillance system for emerging infectious diseases with the Walter Reed Army Institute of Medical Research acting as the communications hub linking the six overseas laboratories. However, the current funding for this program has not been sufficient to meet the needs of a global surveillance system. Therefore, ASTMH urges the Committee to provide the estimated \$7 million in new research and development funds needed to allow DOD to fully develop and operate a global disease surveillance network. This will provide the necessary resources to properly implement an effective program of epidemiologic and preventive medicine research for a number of major infectious disease threats, such as malaria, cholera, viral hemorrhagic fevers including dengue, Rift Valley fever, yellow fever, and Machupo, the hantaviruses, tropical fevers such

as Venezuelan equine encephalitis and Orapouche, and serious parasitic diseases such as systemic leishmaniasis.

The military's overseas laboratories also play an important role in collaboration with U.S. research institutions including academia, industry, and government agencies. Having the fixed facilities, field sites, and staff makes it possible to maximize our infectious and tropical disease research efforts. These collaborations are important not only for expanding our knowledge and understanding of infectious diseases, but also for providing hands-on training for students, investigators, and local health authorities. In many cases, these sites have ensured that productive projects could be carried out. Collaboration between the Walter Reed Research Unit in Rio de Janeiro, Harvard School of Public Health scientists, the Naval Medical Research Institute detachment in Lima, Peru, and the University of Texas at Galveston School of Medicine has resulted in important advances in malaria research and in improved international infectious disease surveillance capabilities.

It is important to mention that while the DOD overseas research laboratories play an essential role in our basic, clinical and epidemiological infectious diseases research efforts, we must not forget to provide funding for overhead—the infrastructure needed to support research programs. In the last two fiscal years, the Naval Medical Research and Development Command has had a 40 percent reduction in support for overhead costs in Navy overseas medical research laboratories. These overseas laboratories are too important to be allowed to deteriorate.

Vaccine Development

Vaccines are the single most effective and cost-effective means of protecting military personnel from infectious diseases during deployment. DOD research facilities have unique expertise, experience and capabilities in developing vaccines and conducting vaccine trials. They are currently conducting clinical trials on a number of promising experimental vaccines. These include vaccines for dengue fever, malaria, shigella, and AIDS. In addition, a number of promising vaccines, such as meningococcal B, hantavirus, and hepatitis E vaccines, are in the pipeline but are not being pursued due to a lack of funding. ASTMH urges Subcommittee members to provide sufficient resources to move these vaccines to clinical trials. These clinical trials will not only impact military preparedness but will advance existing public/private vaccine development partnerships.

One of the most critical and complex areas for vaccine development is malaria. Malaria infects 300–500 million people annually and kills an estimated 2.1 million people every year. As it continues to spread and drug-resistant forms become more frequent, new drug and vaccine development is critical. DOD research has already resulted in the development of two new drugs for the prevention and treatment of malaria, Mefloquine and Halofantrine. Research on vaccine development is moving forward quickly. In fact, collaborative vaccine development efforts between WRAIR and a private pharmaceutical company have moved to the clinical testing phase and the results are promising. This research has produced the first vaccine which has protected volunteers from mosquito-born malaria infection. Researchers with the NMRI are also at the forefront of efforts to develop a DNA vaccine against malaria.

Scientists from NMRI and WRAIR are also working with scientists from the Institute from Genomic Research to sequence the genome of plasmodium falciparum, the most common human malaria parasite. DOD has indicated that it will invest as much as \$8 million over five years in the project. Understanding of the genome is central to our ability to develop an effective DNA malaria vaccine.

We are making progress but we cannot move forward without the involvement of military scientists and a sustained funding commitment.

Conclusion

The ASTMH requests your continued support of DOD Infectious Diseases Research programs. This is critically important given the resurgent and emerging infectious disease threats which exist today. The DOD programs are essential to advancing our war on infectious diseases and to protecting America's military forces. We are pleased that the Administration's request for infectious disease research programs does not cut current funding levels. However, as indicated in our testimony, there are many areas of unmet need and opportunity. Failure to act now will only result in health care cost increases for the military and threaten future troop deployments.

With a shrinking U.S. military, coupled with the need to respond to conflict anywhere in the world, it is more important than ever to preserve combat readiness. Like other military research, medical research cannot easily be restarted whenever the need arises.

Thank you for your consideration of our requests. I would be pleased to respond to any questions.

DISCLOSURE INFORMATION

The American Society of Tropical Medicine and Hygiene (ASTMH) has received the following federal support:

National Institutes of Health (1997), \$7,000.

Purpose: To support travel expenses of selected outstanding young investigators from developing countries, allowing them to participate in the Society's annual scientific meeting.

U.S. Army (1996), \$15,000.

Purpose: To support travel expenses of selected outstanding investigators from developing countries, allowing them to participate in the Society's annual scientific meeting.

National Institutes of Health (1996), \$7,000.

Purpose: To support travel expenses of selected outstanding investigators from developing countries, allowing them to participate in the Society's annual scientific meeting.

Senator INOUE. May I ask, what is shigala?

Dr. BURKE. Shigala is one type of diarrhea that can cause bloody diarrhea. It is very common in persons who are in tropical countries, sir.

Senator INOUE. And what is Rift Valley Fever?

Dr. BURKE. That is a hemorrhagic fever not unlike the Ebola in terms of its clinical manifestations, but it is transmitted by biting insects.

Senator INOUE. And Machupo?

Dr. BURKE. That is another one of the hemorrhagic fevers. These are all the emerging disease threats that are considered a real problem when you put people into tropical disease areas, particularly in Africa, and the U.S. military has particular expertise in these diseases, what with the facility at Fort Dietrich.

Senator INOUE. Is there coordination between the military and, say, NIH?

Dr. BURKE. There is a good degree of coordination. The military tends to focus more on the international disease threats and the more severe disease threats that might be encountered by military personnel. The NIH tends to focus more on the domestic population disease threats. There is a lot of collaboration, particularly on diseases like malaria.

Senator INOUE. Thank you very much, doctor.

STATEMENT OF HOLLY E. HAZARD, EXECUTIVE DIRECTOR, DORIS DAY ANIMAL LEAGUE

Senator INOUE. Our next witness is the executive director of the Doris Day Animal League, Ms. Holly Hazard.

Ms. HAZARD. Thank you, Senator Inouye. I am going to synopsise my comments to make my comments as brief as possible.

In the 1960's the Air Force acquired a colony of chimpanzees for testing space travel before any American astronaut went into space. The Air Force, which has not used chimpanzees for space research since 1970, has leased them to various laboratories and has now decided to either retire the animals to a sanctuary, or to transfer them to yet another research facility through a competitive bidding process. There are currently 142 chimpanzees under the Air Force's care.

The U.S. Congress authorized this divestiture of the chimpanzees in the 1997 National Defense Authorization Act. The humane community is working diligently to place a bid on these animals. The Center for Captive Chimpanzee Care, directed by Jane Goodall and others, has been formed for the specific purpose of offering these chimpanzees a new life.

The center envisions a place where chimpanzees can learn to interact in social groupings without enclosures and to live out the rest of their lives as best a chimpanzee can in a captive environment. We have secured architectural plans and are looking for an appropriate site and acquired an executive director.

We have managed to raise \$1,195,000 in the last 6 months, some of it in a challenge grant, and I have just learned that the Doris Day Animal Foundation has agreed to add another \$100,000 to this pot, but this amount, although staggering in the realm of the non-profit world, is woefully short of the amount needed to successfully bid and provide a secure future for these animals.

Meanwhile, the bidding process has been fraught with bias and inequities that tipped the process significantly in favor of the status quo. We have been given conflicting information as to who owns the \$10 million building that was financed by the Federal Government and in which many of the chimps are housed on Holloman Air Force Base.

The Air Force Base has referenced \$1.2 million in endowments that supposedly accompany some of these animals specifically for their retirement. However, the funds, which are maintained by the Coulston Foundation, the current leasee, have been placed in an irrevocable trust and will not be transferred with the chimpanzees, according to the Air Force.

The humane community may be forced to bid on these animals against a bidder who has already been awarded Federal money for their lifetime care, but which will not release the funds.

The humane community wants to do what is right by these animals. To do so will stimulate research into how best to care for other captive chimpanzees. It will provide a model sanctuary as recommended by a recently convened NIH-sponsored NAS commission on the care of captive chimpanzees and also by the Speaker of the House of Representatives, but the humane community cannot do it alone.

We did not capture these animals. We did not perform research on these animals. We did not warehouse them. However, we are willing, indeed we are excited to work in a public-private partnership to solve this problem, but we cannot do it without your help.

The Air Force has given us until June 3 to present a proposal. It is unlikely we can meet our fund-raising goal by this deadline, although we are doing all we can.

The United States Government must take some of the responsibility for these products of its progress. These chimpanzees should not be auctioned to the highest bidder. They are not old jets or broken tanks.

On behalf of our 200,000 members and supporters and the hundreds of thousands of humane citizens organized with other animal protection organizations we are asking this committee to appro-

prate one-half of the money needed for the chimpanzees' lifetime care, or \$8 million for fiscal year 1999.

Thank you.

Senator INOUE. I must confess to you that this is a problem that we have not coped with too often. Is this doctor for real, the one that you quote, this Dr. Coulston?

Ms. HAZARD. Yes.

Senator INOUE. Is he for real?

PREPARED STATEMENT

Ms. HAZARD. I have not met him personally. I have only seen videotapes of his comments. He is actually, unfortunately all too real.

Senator INOUE. I can assure you that I will urge my colleagues to read your testimony very carefully.

Ms. HAZARD. Thank you very much, Senator Inouye.

[The statement follows:]

PREPARED STATEMENT OF HOLLY E. HAZARD

As John Glenn proudly comes forward to serve his country once again in a flight into space, we are reminded of the risks that he and others took, the caliber of the man, and of all of his subsequent accomplishments.

However, there are some space veterans who have been ignored by the media and the American public for the past 35 years. No one speaks of their heroism, their sacrifice, and certainly not of their bright future. These are the "Chimpanonauts" and their descendants, currently under the ownership of the U.S. Air Force, and leased out to a private biomedical research laboratory. These 142 chimpanzees, who share 98.4 percent of our DNA, are the survivors and descendants of an original colony of 65 infants who were taken from their families in the jungles in Africa. Brought to the United States, they were trained to explore the safety of space travel prior to manned flight.

In November 29, 1961, five-year old Enos was launched into space inside a Mercury Capsule. Due to a malfunction, Enos was given an electric shock for every correct maneuver he made, a reward-punishment system that contradicted over a year of training. Rather than alter his behavior, Enos endured the shocks and performed the flight tasks he knew were right. The test flight took Enos on a two-orbit ride and landed him alive. This qualified the system for manned flight, and the following year John Glenn orbited the earth three times.

The Air Force, which has not used the chimpanzees for space research since 1970, has leased them to various laboratories, and has now decided to either "retire" these animals to a sanctuary or to transfer them to yet another research facility through a competitive bidding process.

The United States Senate authorized this divestiture under the 1997 National Defense Authorization Act, which states that the Air Force must employ a competitive negotiated bid process for the animals and must divest itself of the primate research complex at no cost to the Air Force. It is not clear whether this financial stipulation applies to the chimpanzees themselves or not.

The humane community is working diligently to place a bid on these animals. The Center for Captive Chimpanzee Care, directed by Dr. Jane Goodall and others, has been formed with the specific purpose of offering these chimpanzees a new life. The Center envisions a place where chimpanzees can learn again to interact in social groupings, with outdoor enclosures, and live out the rest of their years as best a chimpanzee can in a captive environment.

We have secured architectural plans, are looking for an appropriate site and have hired an Executive Director. We have managed to raise \$1,195,000 in less than six months, but this amount, although staggering in the realm of the nonprofit world, is woefully short of the amount needed to successfully bid and provide a secure future for the animals.

Meanwhile, the bidding process has been fraught with bias and inequities that tip the process significantly in favor of the status quo. We have been unable to obtain specific medical, experimental and social information on each chimpanzee or to view property associated with the chimps' care that may be available through the divestiture. We have even been given conflicting information as to who owns the \$10 million building in which many of the chimps are housed on Holloman Air Force Base.

The current lessee, The Coulston Foundation, is a private research laboratory that already owns over 500 chimpanzees. It may submit a bid to assume permanent ownership of the Air Force chimpanzees. The Foundation's director, Dr. Frederick Coulston, is a controversial figure. According to a Wall Street Journal article from December 30, 1997, Coulston is quoted as saying, "I would like to have 5,000 [chimps] to use, eventually, as organ donor banks for humans. * * * He calls AIDS a 'silly disease' whose sufferers should have been forced to display 'a big sign on the door saying 'Quarantine' * * * He says he had to turn to chimps when his work with human subjects—prisoners—was halted in the 1960's."¹

The current lessee was charged in 1995 by USDA with multiple violations of the Animal Welfare Act, including the overheating deaths of three chimpanzees. The case was settled after the lessee agreed to pay a \$40,000 fine. Earlier this year, USDA filed an unprecedented second set of charges, including the negligent deaths of two chimpanzees and seriously deficient housing and sanitary conditions. It is our position that the chimpanzees for whom our government is responsible should be removed from this environment forthwith, much less be subjected to a bid process under which they might remain at this facility permanently.

The Air Force has referenced \$1.24 million in endowments accompanying some of the animals. However, the funds, which are maintained by The Coulston Foundation, have been placed in irrevocable trust funds and will not be transferred with the chimpanzees. The humane community may be forced to bid on these animals against a bidder who has already been awarded federal money for their lifetime care, which can be used to prove his financial ability to provide for the animals. This appears to run counter to Congressional intent.

The humane community wants to do what is right by these animals. To do so will stimulate research into how best to care for other captive chimpanzees. It will provide a model for a "sanctuary" as recommended by a recently convened NIH-sponsored NAS Commission on the care of captive chimpanzees,² and also the Speaker of the House.³

But the humane community cannot do it alone. We did not capture these animals. We did not perform research on these animals. We did not warehouse them. However, we are willing, indeed excited, to work in a public/private partnership to solve this problem, but we cannot do it without your help.

The Air Force has given us until June 3rd to present a proposal; it is unlikely we can meet our fundraising goal by this deadline, although we are doing all we can. The United States government must take some responsibility for these "products" of its progress. These chimpanzees should not be auctioned to the highest bidder. They are not old jets or broken tanks. They deserve the best care, not the easiest outcome, the Air Force can provide. This is true even if it means some additional cost for the United States government.

The chimpanzees cannot speak out on their own behalf, they cannot recount their history and accomplishments, they cannot lobby the United States Senate or direct their fate. But every American who ever looked up into the heavens to pray for our astronauts can recognize what we as a nation owe these individuals, and can act on this conviction. Please appropriate the funds necessary to help us help them live out their lives in peace.

STATEMENT OF FRANCES M. VISCO, PRESIDENT, NATIONAL BREAST CANCER COALITION

Senator INOUE. Our final witness is the president of the National Breast Cancer Coalition, Frances Visco. Ms. Visco.

Ms. VISCO. Good afternoon, Senator Inouye. I just want to highlight some of the points from my testimony, because my testimony has been submitted for the record.

I want to certainly thank you on behalf of the National Breast Cancer Coalition, you and Chairman Stevens, for your ongoing support of the Department of Defense peer review breast cancer research program.

I know that you know the importance of this program to the women in the military, and to military dependents, and also the in-

¹The Wall Street Journal, December 30, 1997.

²"Chimpanzees in Research: Strategies for Their Ethical Care, Management and Use", National Research Council, 1997.

³"Gingrich Supports Chimpanzees Home", The New York Times, May 5, 1998.

credible benefits that have accrued to the Defense Department as a result of the program, enriched partnerships and collaborations with the academic and scientific community, and also a message to the women in the military of the importance of their issues.

We, as you know, have a plan, a plan by which we spend the money appropriated for this program, and the plan has been incredibly successful. It is a plan that helps us look at what has happened in the world of science over the past couple of years.

We can respond very quickly to what is happening out there, and we make certain that the money goes where it is going to have the strongest effect, and I think the recent news on cancer research highlights the importance of what it is that we have been doing through this program.

You know, the cancer drug through Jude Folkeman's research on antiangiogenesis, he has had that idea for 30 years, and no one would fund him. The traditional funding mechanisms would not believe that it was a worthwhile idea.

Well, the Department of Defense program is filling gaps like that. At the Food and Drug Administration right now there has been filed a request for approval of a very exciting, innovative therapy for breast cancer treatment, and this new therapy was funded in part through DOD funding while no one else would give the funding for that part of this research, so that is the kind of places where this program puts its money and where we put our money.

Now, we are collaborating through this program with the National Institute of Health [NIH] and the National Cancer Institute [NCI] so that we do know what is going on there and what is happening in the outside world. Equally important, the integration panel that oversees this panel of which I am a member has outside scientists. It has representatives from the National Cancer Institute, but it also has primarily renowned scientists from the outside community, and so we are constantly getting information on what is happening in the world of research into breast cancer.

I think another very important thing that has happened through this program, of which we can all be proud, is this past year we had the Era of Hope meeting in Washington, D.C., and I am very sorry that you could not attend that meeting. It was incredible, where for the first time ever the taxpayers of this country were given a detailed report of what happened with their tax dollars. It was incredibly successful and we are going to continue to do that.

PREPARED STATEMENT

While we are making great strides, the vast majority of the research is not getting funded. The proposals that score well are not getting funded through this program, and that is why we presented to the committee this morning a letter from 63 of your colleagues in the Senate in support of your request for \$175 million to continue this incredible program.

But once again, I want to thank you.

[The statement follows:]

PREPARED STATEMENT OF FRANCES M. VISCO

Thank you, Mr. Chairman and members of the Appropriations Subcommittee on Defense for your exceptional leadership in the effort to increase and improve breast

cancer research. As my testimony will describe in detail, the investment in cancer research made by you and this Committee is one of the contributions which has brought us closer than ever to the verge of significant discoveries about cancer. I am Fran Visco, a breast cancer survivor, a wife and mother, a lawyer and President of the National Breast Cancer Coalition (NBCC).

As you know, the NBCC, a grassroots advocacy organization made up of over 450 organizations and tens of thousands of individuals, has been working since 1991 toward the eradication of breast cancer through advocacy and action. The NBCC's goals are (1) to increase the federal funds available for research into breast cancer and to focus research on prevention, on finding the cause of and a cure for this insidious disease; (2) to make certain that all women have access to the quality care and treatment they need, regardless of their economic circumstances and (3) to increase the influence of women with breast cancer in the decision making that affects their lives.

On behalf of the NBCC and the 2.6 million women who are now living with breast cancer, I thank you for your strong past support of the Department of Defense's (DOD) peer-reviewed Breast Cancer Research Program and I urge your continued support of this important program with an appropriation of \$175 million for the program for fiscal year 1999. The NBCC believes this program is vital to the eradication of breast cancer. And we are not alone, I have with me a letter signed from over 50 of your colleagues in the Senate which requests that the DOD peer-reviewed Breast Cancer Research Program be funded at \$175 million for fiscal year 1999.

As a member of the Integration Panel that implements the DOD Breast Cancer Research Program, I have witnessed the evolution of this program. In just five short years, the program has matured from a small, isolated research program to a broad-reaching influential voice forging new and innovative directions for breast cancer research and science. The flexibility of the program has allowed the Army to administer this groundbreaking research effort with unparalleled efficiency and skill. In addition, an inherent part of this program has been the inclusion of consumer advocates at every level, which has created an unprecedented working partnership between advocates and scientists and ultimately led to uncharted research in breast cancer.

It is important to note that the DOD Integration Panel that designs this program has a plan on how best to spend the funds appropriated. This plan is based on the state of science—what we know—the gaps that exist in our knowledge and the needs of women and their families. This plan exists within our philosophy that we do not want to restrict scientific freedom, creativity and innovation. While we carefully allocate these resources we do not want to predetermine the specific research areas to be addressed. This permits us to complement and not duplicate other federal funding programs. For example, the recent announcement of two new drugs that will go into clinical trials for cancer based on the preliminary work of Judha Folkman, highlights the importance of this philosophy. The DOD Breast Cancer Research Program funds ideas similar to Dr. Folkman's—those that are not easily accepted within traditional funding programs. In addition, a possible new revolutionary therapy for breast cancer is now before the FDA for approval. This therapy comes from research that in part was funded through the DOD program, when no one else would support the research.

The NBCC, and its members, are dedicated to working with you to ensure the continuation of funding for this program at a level that allows this research to forge ahead. Just last week, our members were up on Capitol Hill to bring our message to Congress. We had over 600 breast cancer activists from across the country join us at our Annual Advocacy Training Conference to continue to mobilize behind the efforts to eradicate breast cancer. The overwhelming interest and dedication to eradicate this disease continues to be evident as people are willing to come all the way to Washington, D.C.—paying the expenses out of their own pocket and taking time away from their careers and families—to deliver their message about the importance of our commitment.

Breast cancer costs this country untold dollars in medical costs, lost resources, lost productivity, and in lost lives. The war against breast cancer, the search for answers to what causes the disease, how we can prevent it, how we can cure it—these are immense issues, requiring a concerted, coordinated effort on the national level. Breast cancer is not just an issue for one month, but an ongoing crisis.

However, as is becoming more and more apparent in the media, we seem to be on the brink of a historical moment for cancer research. Recent discoveries and breakthroughs in cancer treatment have created extraordinary momentum in the fight against cancer at all policy levels. There is a new energy and optimism in the U.S. in the scientific, policy and consumer communities around cancer research—a universal feeling that the significant past research investments are poised to pay

major dividends in the areas of cancer prevention, detection and treatment. We are closer than ever before to reaching our goal of eradicating breast cancer. Your leadership in supporting the DOD Breast Cancer Research Program is an essential component of the innovative approach that is needed to finally combat this disease.

Since I testified before this Committee last year, the success of the DOD Breast Cancer Research Program has been illustrated by two unique assessments of the program. The Institute of Medicine (IOM) which originally recommended the structure for the program, independently re-examined the program in a report published in 1997. Their findings overwhelmingly encourage the continuation of the program and offer guidance for program implementation improvements. In addition to the IOM report, the DOD Breast Cancer Research Program reported the progress of the program to the American people during a public meeting called the "Era of Hope." It was the first time a federally funded program reported back to the public in detail not only the funds used, but the research undertaken, knowledge gained from that research and future directions to be pursued. This meeting allowed scientists, consumers and the American public to see the exceptional progress made in breast cancer research through the DOD Breast Cancer Research Program.

The 1997 IOM review of the DOD Breast Cancer Research Program commended the program and stated that "the program fills a unique niche among public and private funding sources for cancer research. It is not duplicative of other programs and is a promising vehicle for forging new ideas and scientific breakthroughs in the nation's fight against breast cancer." The IOM report recommends continuing the program and establishes a solid direction for the next phase of the program. It is imperative that Congress complement the independent evaluations of the DOD Breast Cancer Research Program, as well as reiterate their own high level of commitment to the program by appropriating the funding needed to ensure its success. The IOM report has laid the ground work for effective and efficient implementation of the next phase of this vital research program, now it needs the appropriate funding.

The success of the program was also highly evident in the fall of 1997, when the DOD Breast Cancer Research Program hosted their public meeting, "Era of Hope," bringing together scientific investigators and consumers to examine the progress made since the program's inception and look ahead at upcoming developments in promising new directions. The conference focused on breast cancer prevention and detection; breast cancer genetics and biology; and breast cancer treatment and quality of life. For each topic, the current status of health care or research available was examined and potential areas for progress were presented. The presentations were given both by scientists and consumers, demonstrating the strong partnership that has evolved between the scientific community and the public around breast cancer research. The unique collaboration of scientists and consumers in this public meeting, reaffirmed that together scientists and consumers are bringing an unforeseen vision and commitment to the fight against breast cancer and allowed for many new innovative ideas to be exchanged.

One of the most impressive outcomes of the DOD Breast Cancer Research Program, made evident at the "Era of Hope" meeting, was the caliber of new scientific talent the program has recruited and the research insight the program has given them. The DOD program has not only increased current research, but has also inspired new efforts on the part of some of the nation's best and most experienced researchers who have never before been attracted to breast cancer research. In the proceedings from the meeting, Brigadier General Zajtchuk, Commander of the U.S. Army Medical Research and Materiel Command, stated that "the high quality and innovation of the research contained in these volumes and presented at the meeting clearly reflects that the U.S. Army Medical Research and Materiel Command has supported some of the most talented and creative scientists in their efforts to eradicate breast cancer."

Many scientists at the "Era of Hope" meeting expressed their enthusiasm for the program and the opportunity to work substantively with consumers at every step of the research process. In fact, the scientists who have seen first hand the benefits of the DOD Breast Cancer Research Program have issued a strong statement, that in their scientific judgement the program should continue: "* * * we urge that this program receive ongoing funding. This program has been broadly defined such that the research performed will be of benefit not just for breast cancer, but for all cancers and other diseases."

The DOD Breast Cancer Research Program has attracted bright, fresh scientific minds with new ideas and continues to open the doors to how they think about breast cancer research and research in general.

Developments in the past few years have begun to offer breast cancer researchers fascinating insights into the biology of breast cancer and have brought into sharp

focus the areas of research that hold promise and will build on the knowledge and investment we have made. The Innovative Developmental and Exploratory Awards (IDEA) grants of the DOD program have been critical in the effort to respond to new discoveries and to encourage and support innovative, risk-taking research. The IDEA grants have been instrumental in the development of promising breast cancer research. These grants have allowed scientists to explore beyond the realm of traditional research and have unleashed credible new ideas and concepts. IDEA grants are uniquely designed to dramatically advance our knowledge in areas which offer the greatest potential.

Therefore, we have devoted a majority of the DOD funds to these types of grants, yet there were many promising proposals that could not be supported because of a lack of funds. It is disheartening to think that lack of funding could be the only factor stalling scientific research that could save so many lives. IDEA grants are precisely the types of grants that cannot receive funding through more traditional programs such as the National Institutes of Health, and academic research programs. It is vital that these grants are able to continue to support the growing interest in breast cancer research—\$175 million for peer-reviewed research will help sustain the IDEA grant momentum.

In addition to the fact that the DOD program provides desperately needed, excellent quality breast cancer research, it also makes extremely efficient use of its resources. In fact, over 90 percent of the funds go directly to research grants. The federal government can truly be proud of its investment in DOD breast cancer research. The overall structure of the system has streamlined the entire funding process, while retaining traditional quality assurance mechanisms.

The NBCC is highly committed to the DOD program, as we truly believe it is one of our best chances at finding a cure or prevention for breast cancer. In May of 1997, our members presented a petition with over 2.6 million signatures to the Congressional leaders on the steps of the Capitol. The petition calls on the President and the U.S. Congress to spend \$2.6 billion on breast cancer research between 1997 and the year 2000. Funding for the DOD peer-reviewed Breast Cancer Research Program is an essential component of reaching the \$2.6 billion goal that so many women and families worked to gain.

Mr. Chairman, you and this entire Committee have been leaders in the effort to continue this innovative investment in breast cancer research. We ask you, the Defense Appropriations Subcommittee, to recognize the importance of what you have initiated. What you have done is set in motion an innovative and highly efficient approach to fighting the breast cancer epidemic. What you must do now is continue to support this effort by funding research that will help us win this very real and devastating war against a cruel enemy.

Thank you again for inviting me to testify and giving hope to the 2.6 million women living with breast cancer.

Senator INOUE. I believe the women of America owe you a debt of gratitude, you and your ladies, for your determination and your persistence, and your commitment. I have seen the ladies standing in dark corridors at all hours of the day and night lobbying. I can tell you that the success that you have seen is due to your persistence and, in fact, many Members of the Congress are deathly afraid of your coalition. [Laughter.]

Maybe the other lobbying groups could learn a lesson from you.

Ms. VISCO. Well, it really is as a result of the partnership we have developed with Members of Congress who support this cause also.

Senator INOUE. Seriously, we will do our best.

Ms. VISCO. Thank you very much, Senator.

Senator INOUE. I wish to thank all of you on behalf of the committee for sitting by all of these hours.

ADDITIONAL SUBMITTED STATEMENTS

The subcommittee has received statements for witnesses who could not testify and they will be placed in the record at this point. [The statements follow:]

PREPARED STATEMENT OF MICHAEL D. MAVES, MD, MBA, EXECUTIVE VICE PRESIDENT, AMERICAN ACADEMY OF OTOLARYNGOLOGY—HEAD AND NECK SURGERY, INC.

Mr. Chairman, I am Michael D. Maves, MD, MBA, Executive Vice President of the American Academy of Otolaryngology—Head and Neck Surgery, Inc. (AAO-HNS). Thank you for the opportunity to present this testimony to you on behalf of our Academy. As you may know, the AAO-HNS is the largest medical society of physicians, with over 10,000 members, dedicated to the care and treatment of patients with disorders of the ears, nose, throat and related structures of the head and neck. We are sometimes referred to as ENT physicians.

Mr. Chairman I would like to bring to your attention several issues that concern the Academy.

Tobacco

The first of these is tobacco use cessation in the military.

The American Academy of Otolaryngology—Head and Neck Surgery, Inc. has been opposed to the use of tobacco for many decades. We are the physicians who care for most of the patients with cancer of the head and neck, and we see the harmful affects of tobacco use among our patients every day.

Increasingly there are news reports of tobacco companies admitting to the adverse impacts of tobacco on users. We also know that there can be significant impacts on individuals, especially children, who happen to be in the vicinity of toxic smoke from tobacco products used by others.

We were pleased to see that several years ago the Department of Defense announced a policy banning smoking in all DOD work facilities worldwide. This far-reaching initiative makes DOD workplaces free of harmful secondhand smoke as well and thus will improve the overall health of all military personnel.

We do know, however, that many in the military have substituted tobacco smoking with smokeless tobacco to avoid disciplinary action where smoking itself is prohibited—smokeless tobacco also has very serious medical effects.

Even with all of the scientific information we now have about the negative impacts of smoking and secondhand smoke on individuals, we find that tobacco use is still indirectly encouraged by the military through subsidized sale of tobacco products at military commissaries and PX's where cigarettes and other tobacco products can be bought at much lower prices than otherwise would be charged. The Academy has expressed its concern that the DOD would likely not ban sale of tobacco products in the commissary system. We strongly support the concept of bringing tobacco prices at least to a parity with civilian prices to help cut down on use.

We especially urge that the Department of Defense promote tobacco cessation programs with personnel and their families, but especially in relation to mothers and children, about the hazardous affects of secondhand smoke as well as tobacco.

Skin Cancer and UV Radiation

Last year the Academy indicated its strong support of the Environmental Protection Agency (EPA) and the National Weather Service (NWS) and the Centers for Disease Control and Prevention (CDC) in developing nationwide UV Index to alert members of the public to the dangers of excessive radiation from the sun, potentially resulting in skin cancers (especially of the head and neck), eye damage and immune system damage.

It is our understanding that one of your Senate colleagues, Senator Connie Mack of Florida, has begun an effort with the National Association of Physicians for the Environment (NAPE) to survey selected Federal agencies to determine the extent of education programs regarding skin cancer as affected by excessive ultraviolet radiation from sunlight. Those Federal agencies would include those which have employees and clients (such as farmers served by the Department of Agriculture) routinely exposed to occupational and recreational sunlight far more than the general public.

Of course, the major agency which has such personnel is the Department of Defense. Millions of our young men and women are routinely exposed to excessive sunlight for long periods of time in carrying out their duties. Senator Mack has requested from the DOD a report on its educational activities, and will follow up, we are sure, with recommendations for necessary actions to be taken.

Our Academy members, of course, deal with many of the skin cancers of the head and neck, where many of the skin cancers occur. We urge that this committee consider, once the report is made available by Senator Mack, how it might participate with the Department of Defense in insuring that all personnel and their families are educated in this regard. One excellent instrument of education is the so-called UV Index, widely made available by the National Weather Service and by private weather reporting companies, which indicates, particularly in the summer, in a

range of 1–10, the severity of UV radiation from the sun, at given localities throughout the United States. This excellent tool has been used by our Academy to inform members of the public about the extent of sunlight and have warned the public about the dangers of excessive sun exposure. Both the Centers for Disease Control and Prevention and the U.S. Environmental Protection Agency support the effort on skin cancer and use of the UV Index. Although these agencies are not funded by this committee's recommendations, nevertheless we note here their commendable activities in this regard.

Along those lines we would be remiss if we did not report how pleased we are to see that a large number of military units have been receiving awards from the EPA Stratospheric Protection Division for their work in reducing the use of CFC's and other atmospheric ozone depletion chemicals in their activities, leading to stratospheric ozone layer protection.

As you know, the stratospheric ozone layer protects us from excessive UV radiation harmful to the skin, and potentially causing skin cancer.

In this activity and in so many others that the Department of Defense has become a leader in, we have seen the "greening" (environmental improvement) of the Department facilities.

Noise Reduction

Finally, Mr. Chairman, let me deal with the issue of noise reduction.

Our Academy, from its beginning, has been concerned about the affect of excessive noise on the structures of the ear, particularly those noises which are extremely excessive. We know that noise is a necessary part, frequently, of daily military life, and particularly so in wartime. Nevertheless, we believe that many of the noise affects on military personnel can be reduced by the appropriate use of noise-reducing and prevention activities.

Summary

Mr. Chairman, we have raised several issues with you involving the interface between the Academy's concerns and military activities.

I would be happy to answer any questions you may have.

PREPARED STATEMENT OF EDITH G. SMITH, CITIZEN ADVOCATE FOR DISABLED MILITARY RETIREES

I am Edith Smith, a citizen advocate dedicated to correcting the inequities in the TRICARE benefit now provided to disabled retired beneficiaries who are dually eligible for Medicare. I am pleased to submit my statement to the Members of the Defense Subcommittee of the Committee on Appropriations, United States Senate, at a hearing for public witnesses on May 11, 1998.

My husband, Vincent M. Smith, and I became involved in this advocacy work as a result of our personal experiences and the devastating situations faced by other disabled retirees when they were unexpectedly terminated from their CHAMPUS benefit of retirement as a "cost saving" measure to the Pentagon.

In 1989, my husband qualified for Social Security Disability Income at age 49 through Social Security contributions made solely by his private sector employer of more than 6 years following his military retirement from 21 years honorable service in the United States Marines Corps. Twenty-nine months later, his CHAMPUS benefit ended without notice of termination from DEERS, and he was forced to the lesser benefits of Medicare simply because he was disabled. How can DOD force the substitution of a benefit earned through private sector employment (Medicare) for a benefit of military retirement (CHAMPUS)?

Efforts initiated by Congressman Bill Young, FLA., and Senator John McCain, AZ, quickly restored CHAMPUS as second payer to Medicare A and B for retired beneficiaries under age 65 in October, 1991.

I would like to present my views on the military health benefit as uniquely provided to military retirees and their family members who become eligible for Medicare under age 65. I believe the Department of Defense has interpreted and implemented (or failed to implement) these laws in the most restrictive budget sense favoring the system, often without regard for fairness and equity to disabled beneficiaries. Congress passed these laws as critical protective measures to ensure that retired military beneficiaries would receive no less medical benefit than others simply because of their misfortune to suffer full disability or End Stage Renal Disease (ESRD.)

The requirement to enroll in Medicare Part B coverage is an unjust, discriminating, and additional requirement of TRICARE eligibility for disabled retired beneficiaries. Medicare Part B participation is not required of disabled active duty family

members to retain TRICARE eligibility or retired Federal Civilians to maintain their eligibility for FEHBP. The disabled retired military beneficiaries are unhappy with this "second class status" and many would be better served by a voluntary option to participate in the Federal Employees Health Benefit Program (FEHBP) that is provided to Congress and the Federal Civilian workforce.

ISSUES OF CONCERN FOR MILITARY MEDICARE ELIGIBLES UNDER 65

Data match between Defense Enrollment Eligibility Reporting System (DEERS) and Health Care Financing Administration (HCFA) was accomplished by DEERS on about March 19, 1998, as required by Sec. 734, Fiscal Year 1996 Defense Authorization Act. DEERS courtesy information letters informing disabled beneficiaries of the termination of their retired eligibility TRICARE/CHAMPUS were mailed on March 20, 1998, to 12,093 beneficiaries who had not purchase Medicare Part B. 99,676 military beneficiaries were identified as eligible for Medicare A and TRICARE by the DEERS/HCFA match.

DEERS inaccurately reflects TRICARE as primary w/o Part B. It appears that DEERS did not update their computer records on March 20, 1998, to reflect Medicare A and the lack of Part B for individuals identified on the HCFA data tape when the match occurred. 12,093 disabled persons may now be erroneously listed in DEERS as primary TRICARE eligible. Government personnel who depend on DEERS records have informally advised some disabled individuals who are not enrolled in Part B to continue with needed medical care under TRICARE until DEERS records reflect their ineligibility for TRICARE pending anticipated retroactive legislative relief. DOD must document this situation or informal policy so that no disabled person who trusted government advice will later be at risk to suffer prosecution under TRICARE fraud regulations if other officials disagree with this policy at a future date in order to recoup TRICARE funds and balance the budget on the backs of desperate disabled retirees.

Part B requirement waived temporarily to September 30, 1998. The Supplemental Appropriations Bill, April 30, 1998, contains language to temporarily waive the Part B requirement for TRICARE beneficiaries who are dually eligible for Medicare. This waiver is based on a determination that such continuation is appropriate to assure health care coverage for a person who may have been unaware of the loss of CHAMPUS eligibility. The Part B waiver must be continued until July 1, 1999, in order to properly coordinate with the complex enrollment requirements of Medicare B.

Waiver of recoupment for erroneous CHAMPUS payments for Medicare eligibles; fiscal year 1996, Section 743, Not yet implemented—over 2 years later. Proposed rule published in Federal Register, December 4, 1997. A description of this provision was omitted from the DEERS letter mailed to disabled beneficiaries on March 20, 1998.

"Equitable Relief" waivers for Under 65's are the appropriate solution to this "no Part B" problem and must be approved for request by DEERS as discussed in a letter from Dr. Stephen Joseph, ASD(HA) to HCFA, January 16, 1997. It appears that the rights of Medicare eligibles under age 65 have been prejudiced by DOD's failure to accomplish a data match which has caused the unintentional, inadvertent, or erroneous nonenrollment by some beneficiaries in Medicare Part B. "Equitable Relief" granted by HCFA would allow immediate or retroactive enrollment in Medicare Part B without premium penalties, thus quickly restoring earned TRICARE benefits to our most needy retirees without legislative changes.

Eliminate the unfair requirement of Medicare Part B for TRICARE eligibility. People suffer when decreasing DOD staff cannot accomplish the additional tasks to develop the expanded administrative bureaucracy required by this new complex military health benefit.

BACKGROUND

This small group of disabled retired beneficiaries is unjustly denied equal eligibility for TRICARE/CHAMPUS. The disabled military beneficiaries have been cost shifted to the lesser benefits of Medicare A by entitlement, and to Part B by required enrollment with a 1998 premium of \$43.80 @ mo., simply because they have been employed and suffer the misfortune of severe disability or End Stage Renal Disease (ESRD.) No other military beneficiaries are required by law to purchase other health insurance for which they may be eligible in order to save TRICARE money.

Why then has Congress required the disabled beneficiaries to enroll in Medicare B? As DOD develops and expands their new managed care demonstrations and programs, the Medicare eligibles under 65 have been "cherry picked" and left basically

alone to fend for themselves in a "no man's administrative land" of the dual coverage of Medicare and TRICARE.

Since 1973, when Social Security Law first entitled disabled individuals to Medicare A, DOD has recognized a continued need to coordinate a mechanism between DEERS and HCFA to identify and notify dual eligible military beneficiaries. After 25 years, DOD accomplished the data match last month and identified 12,093 unique retired beneficiaries who had failed to purchase Part B. Without Part B these disabled retired beneficiaries were ineligible for TRICARE. Complex Medicare B enrollment requirements will leave many without any outpatient coverage until July 1, 1999.

DOD (HA) reacted with compassion to the plight of this large group of vulnerable beneficiaries and asked Congress for emergency legislation to waive the Part B requirement from January 1, 1998, to July 1, 1999. This legislative relief may leave unintended gaps in medical coverage. DOD's request for relief legislation ignores the spirit of forgiveness (implied by Congress) to waive the Medicare B premium penalties that have incurred because DOD/HCFA did not run the data match in 1991 when CHAMPUS was restored to these individuals.

"Equitable Relief" waivers are critical for retired under 65 beneficiaries because of the ability to enroll retroactively in Part B and the waiver of stiff premium penalties. Retroactive enrollment in Part B insures continuous eligibility for CHAMPUS/TRICARE coverage with necessary reimbursement for any previous unpaid medical bills.

Foreseeing this catastrophic situation the disabled would face when the data match was accomplished, Dr. Stephen Joseph, ASD(HA), wrote to the Administrator of HCFA in January, 1997, and requested assistance in solving the problem unique to Medicare eligibles under 65 resulting from the lack of a data match.

The Health Care Financing Administration (Medicare agency) regulations HI 00830.001—"Granting Equitable Relief", HI 00830.005—"When to Consider Relief", HI 00830.010—"Evidence Required", and HI 00805.236—"Current Equitable Relief Consideration Involving CHAMPUS" describe HCFA's process "* * * to provide certain forms of relief to individuals whose SMI or premium enrollment or coverage rights have been prejudiced by the error, misrepresentation, action or inaction of an employee or agent of the Government * * *." DOD officials explain that "equitable relief" is not an option because of the high cost to HCFA. These regulations do not describe a monetary cap which prevents HCFA from granting forgiveness to a number disabled beneficiaries who were unaware of the change in law.

A DOD (Health Affairs) memo dated June, 1973, documents DOD's need for a mechanism to identify Medicare eligibles under age 65 who are dually eligible for CHAMPUS. If a data match was deemed to be required and run on March 19, 1998, then this data match should have been equally necessary in 1973. The CHAMPUS eligibility situation for active duty family members had not changed since the 1972 Amendments to the Social Security Act provided Medicare for those under age 65 because of disability or End Stage Renal Disease. Contrary to information in the recent DEERS letter, retired disabled military beneficiaries previously enjoyed dual eligibility of Medicare/CHAMPUS without the requirement to enroll in Part B from 1973 to December 13, 1980. If DEERS has mailed courtesy letters to Medicare eligible at age 65 since 1986, then how can government officials from both DOD and HCFA be permitted to turn their heads and ignore an equal need to identify and notify this unique disabled population under age 65?

I respectfully suggest that Congress direct the Department of Defense to revert to old DOD/HCFA policy basis for "equitable relief" for under 65's that includes "error or inaction" on the part of DOD/HCFA employees who have failed to accomplish the data match for 25 years.

DATA MATCH BETWEEN DEERS AND HCFA TO IDENTIFY AND NOTIFY DISABLED MILITARY BENEFICIARIES OF THEIR UNIQUE CHAMPUS/TRICARE ELIGIBILITY REQUIREMENTS

Defense Acts, (not Social Security Law) authorized this Part B requirement. Therefore, the Department of Defense must be held fully responsible and accountable to identify and notify disabled Medicare eligibles under age 65 of their change in eligibility to TRICARE/CHAMPUS. DEERS letters are the only personal notification Medicare eligibles receive. Had the DEERS letters been issued beginning in 1973, these disabled military beneficiaries would have received appropriate information to prompt timely enrollment in Part B, possibly averting the lifetime Part B premium penalties of 10 percent per year associated with late enrollment.

The first DOD memorandum signed by Vernon McKensie, DASD (Health, Resources, and Programs), 25 June 1973, states a need for a "data match" with Social Security. To quote from the memo: "We have not been able to complete the coordina-

tion with Social Security Administration which we feel is necessary to establish a final CHAMPUS implementation of the three new Medicare eligibility provisions of the Social Security Act of 1973 which provide Medicare eligibility for some CHAMPUS beneficiaries. Pending the completion of the necessary coordination of the CHAMPUS and Medicare claims procedures * * *." This coordination was never accomplished by DOD until March 19, 1998.

DEERS is a self-reporting system that holds the military sponsor responsible to update changes to his DEERS records. The Assistant Secretary of Defense (Health Affairs) reported to Congress on April 4, 1997, that 23,733 retired Medicare eligibles under 65 have self-reported their Medicare A eligibility to DEERS. The 1998 data match has identified 99,676 retired beneficiaries dually eligible for Medicare/TRICARE.

If DOD is not held responsible to provide information on this dual coverage, how can disabled beneficiaries be held responsible to know the law? When a disabled beneficiary declines enrollment in Part B, he often does so because he has not been properly informed of the loss of his TRICARE benefit. He believes he is covered by CHAMPUS until age 65 as are all other retirees. He also erroneously believes that if he doesn't pay for Part B, then he is not enrolled, and does not need to report Medicare on his CHAMPUS form.

EQUITABLE RELIEF FOR MEDICARE PART B PREMIUM PENALTIES

The failure of DOD to previously provide DEERS courtesy information letters to dual Medicare/TRICARE beneficiaries should qualify as the "error, misrepresentation, or inaction of a federal employee which caused the unintentional, inadvertent, or erroneous nonenrollment by the beneficiary in Part B." 42 CFR 407.32. [DOD, Office of General Counsel's Opinion, December 21, 1994.]

Prior to 1996, when a military beneficiary attempted late enrollment in Medicare B, DEERS officials generally provided the necessary documentation to request an "equitable relief" waiver from HCFA by explaining that DOD had probably misinformed the retiree about this unique requirement to enroll in Medicare Part B as a condition to retain their military health benefit. TRICARE/CHAMPUS does not provide each military beneficiary with a handbook as does Medicare and most other insurance programs.

Base closures caused many retirees who had depended on military medical care to apply for Medicare Part B with late enrollment penalties. This new influx of Part B applicants caused by base closure (most over 65) prompted HCFA to review sudden increased HCFA costs associated with granting "Equitable Relief" to these retirees. HCFA may not want to absorb additional costs to their programs resulting from downsizing the military.

This influx of Part B applicants caused DOD to tighten its policy traditionally used for providing "Equitable Relief" letters from DEERS for military beneficiaries seeking late enrollment in Medicare B. DOD then forwarded legislation (fiscal year 1997 and fiscal year 1998) requesting "equitable relief" for over 65's in Base Realignment and Closure (BRAC) sites with no explanation for omitting the Medicare under 65's in this legislative proposal.

Why would DOD exclusively identify BRAC site beneficiaries over age 65 to receive legislative relief from the Part B penalties? Most over 65 retirees would have received the DEERS courtesy letters explaining their termination of CHAMPUS, the switch to Medicare, and their personal risk to rely on "space available military medical care" if they choose not to enroll in Part B. DOD's criteria for requesting "equitable relief" waivers must focus on the beneficiaries who were not informed by DEERS courtesy information letters of their changed CHAMPUS eligibility. The unique situation of failing to identify and inform under 65's was not considered when the new DOD policy for "Equitable Relief" was written in May, 1996.

DOD must acknowledge and accept responsibility for error and inaction on the part of government employees who failed to develop a mechanism to inform retired CHAMPUS beneficiaries of their changed eligibility in a timely manner. Had the data match been set up in 1973, the system for the dual coverage of Medicare/CHAMPUS would be working and each beneficiary would have received a timely letter of notification potentially averting penalties and a lapse of medical coverage when they need it most.

TRICARE PRIME ENROLLMENT FOR MEDICARE ELIGIBLES UNDER 65

ELIMINATE MEDICARE PART B REQUIREMENT

I ask the Committee to please support the removal of the mandated requirement to purchase Medicare Part B as an unnecessary and unfair condition to enroll in

TRICARE PRIME for the retired Medicare-eligible beneficiary. TRICARE and Medicare are two different federal health programs run by two distinctly different federal agencies who serve distinctly different populations and purposes. If they have difficulty working together to accomplish a data match in 25 years, how will they coordinate their health benefits so that medical care for the most needy is accomplished without undue problems?

Most DOD informational materials on TRICARE PRIME generally state that Medicare-eligibles may not enroll in PRIME at this time. Medicare eligibles under age 65 with Part B are eligible for TRICARE PRIME enrollment. TRICARE PRIME charts describing eligibility categories, enrollment fees, and copayments must be required to include unique Medicare-eligible requirements. DOD's explanation that the disabled group is too small or the dual coverage too complex to justify space in the marketing materials is not reasonable. TRICARE websites also have failed to adequately describe the requirements of Part B for unique beneficiaries. TRICARE money saved by cost shifting the disabled to Medicare should be spent informing the disabled beneficiaries of their unique health benefit situation.

Many military medical administrators are unaware of the complex eligibility requirements of the dual Medicare/TRICARE benefit.

- Active duty family Medicare-eligible member is not required to purchase Part B.
- Retired Medicare eligible beneficiary under 65 is required the Part B purchase.
- Disabled family member who has not earned Social Security credits for Disability Income retains full CHAMPUS eligibility until age 65 without the required switch to Medicare.
- Medicare eligibles at any age may enroll in the Uniformed Services Family Health Plan without the requirement to purchase Part B.

Historically, military health benefits advisors have been untrained and unable to discuss Medicare benefits. Now that Defense ACTS have mandated Medicare as a substitute and requirement for under 65's to participate in TRICARE, the Defense Department must be responsible to inform individuals about their Medicare benefits and how they coordinate with TRICARE. The DOD must not "cherry pick" their programs of retirees because of age or health status as an easy way to meet budget targets.

HISTORY OF TRICARE/CHAMPUS ELIGIBILITY FOR MEDICARE ELIGIBLES UNDER 65

1965, Congress established the Medicare Program under Title 18 of the Social Security Act. Medicare is a Federal Health Insurance Program administered in 2 parts, Part A and Part B. Part A is financed through taxes paid by workers and their employers (premium free to entitled individuals.) Part B is paid for in part by premiums from persons who were given the voluntary option to participate.

1966, the expressed intent of the Congress was to provide military retirees a premium free CHAMPUS benefit (in lieu of a reduced monthly compensation) equal to the Federal Employees Hi Option Blue Cross/Blue Shield or other popular fee-for-service FEHBP plan. Congress provides a Military Medical System with a priority for "wartime readiness."

1972, the Social Security Amendments (42 USC 1395c) expanded Medicare eligibility to entitled disabled CHAMPUS beneficiaries on or after 1 July 1973. DOD permitted a dual coverage benefit for all eligible beneficiaries until 1980 with no Part B requirement. The CHAMPUS regulations (DOD 6010.8 dated 10 January 1977) terminated CHAMPUS coverage effective January 1, 1978, for Medicare eligibles under age 65, but this was not supported in law. Fiscal year 1979 Testimony presented to the Senate Armed Services Committee by Mr. Vernon McKenzie, ASD(HA) described this termination of CHAMPUS as a "cost saving administrative action" that did not reduce medical coverage.

1980, CHAMPUS eligibility terminated for retired beneficiaries under age 65 who became entitled to Medicare Part A. Public Law 96-513, Sec. 511, an amendment to the "Defense Officer Personnel Management Act" signed on December 12, 1980.

1991, CHAMPUS restored as second payer to Medicare A and B for retired beneficiaries under age 65. Fiscal Year 1992 Defense Appropriations Act, Public Law 102-190.

1994, Authorized Coordination of Benefits between Medicare and CHAMPUS specifying traditional reimbursement procedures. Fiscal Year 1995 Def Auth Act, Public Law 103-337, Sec. 704.

1995, "Waiver of recoupment" for erroneous CHAMPUS payments. Fiscal year 1996, Sec. 743, which provides the authority to waive the collection of erroneous civilian health care payments from persons under the age of 65 who unknowingly lost TRICARE/CHAMPUS eligibility when they became eligible for Medicare as a result

of a disability or End Stage Renal Disease. The period of waiver authority begins January 1, 1967, and ends on either the termination date of any special enrollment Medicare period established by law, or July 1, 1996, whichever is later. The rule was published in the Federal Register, December 4, 1997.

1995, "Data Match"—Congress directs the administering Secretaries to develop a mechanism for notifying beneficiaries of their ineligibility for CHAMPUS when loss of eligibility is due to disability status or entitlement to Medicare Part A under age 65. Fiscal Year 1996 Defense Authorization Act, Sec. 734.

1997, January 16th letter from DOD (Health Affairs) to HCFA requesting a dialogue to develop viable options to provide "equitable relief" for CHAMPUS beneficiaries who are entitled to Medicare under age 65. DOD(HA) acknowledges the inability of DOD to identify this category of beneficiaries in order to notify them of the change in law. The execution of a timely data exchange was also requested.

1997, Medicare Subvention Demonstration bills passed with fiscal year 1998 Budget Amendment. This Military Medicare Demo' is the only "at risk" Medicare HMO permitted to exclude the Medicare eligibles under age 65 who suffer disability. Are the Medicare eligibles under 65 an "unfunded mandate" for MTF's? How will they be treated by the Military Facility Commander who retains the legal ability to pick and choose the MTF patients according to the needs of their Graduate Medical Education Program and the MTF budget targets?

1997, Legislation waiving Medicare Part B late enrollment penalty excludes disabled Medicare eligibles under 65. H.R. 598 by Rep. John Ensign, (R-Nev.) and S. 912 by Sen. Chris Bond, (R-MO) waives the Part B premium penalty for over 65's. Why is there a discriminating omission of the Under 65's when they are the ones who did not receive DEERS notification of the change in the CHAMPUS eligibility?

1998, Waiver of TRICARE PRIME enrollment fee for Medicare eligibles under age 65. DOD's final rule was published in the Federal Register with the effective date of March 26, 1998. However, DOD policy may not have been disseminated in time to be included in the initial marketing materials for Regions 1, 2, and 5.

1998, "Data Match" was accomplished by DEERS/HCFA on March 19, 1998, and DEERS letters were immediately mailed to 12,093 beneficiaries who had not purchased Part B and were without any outpatient coverage. The DEERS/HCFA data match identified 99,676 retired individuals who are Medicare eligible under age 65. If ASD(HA) last reported 23,733 dually covered beneficiaries, it would seem that about 76,000 military beneficiaries were erroneously listed with DEERS as having primary CHAMPUS eligibility.

1998, Temporary waiver of Part B requirement provision in Supplemental Appropriations bill. April 30, 1998. This emergency measure assures continued medical coverage under TRICARE until September 30, 1998, for individuals who were unaware of the loss of TRICARE/CHAMPUS and the requirement to enroll in Medicare B.

CONCLUSION

We are very grateful to the Congress for the restoration of CHAMPUS benefits to retired military under age 65 who are dually entitled to Medicare A and enrolled in Part B. However, we are concerned about the lack of oversight and understanding by DOD to administer this dual benefit with full responsibility and accountability. DOD must now accept full responsibility to advise retired beneficiaries about both Medicare and TRICARE. If Congress persists in requiring Medicare B, then DOD must adjust TRICARE coverage to fully supplement Medicare similar to the Federal Employees Health Benefits Program and Medicare, waiving all cost shares and deductibles of TRICARE as a "quid pro quo" for Part B enrollment.

RECOMMENDATIONS

Obtain additional emergency legislation to waive the Part B requirement temporarily in order to ensure continuing medical coverage for retired beneficiaries until July 1, 1999.

I respectfully suggest that Congress direct the Department of Defense to designate a position to oversee the fair and equal administration of the health benefit as uniquely provided to Medicare beneficiaries under age 65. Funding for this centralized oversight task can be offset by savings accrued with the DOD money saved from shifting retired beneficiaries from TRICARE to Medicare A and B.

DOD must be directed by Congress to work out an arrangement of relief for disabled beneficiaries consistent with HCFA requirements for "Equitable Relief" considerations. Congress implied forgiveness of disabled persons with "Waiver of Recoupment" of erroneous CHAMPUS payments provision in Fiscal Year 1996 Defense Authorization Act. The relief from Part B penalties should be similarly grant-

ed. Without "Equitable Relief," disabled retirees are not properly enrolled in Medicare Part B will find themselves without outpatient coverage for up to 15 months * * * an unconscionable, unintended consequence of law combining two incompatible Federal Health Programs.

Congress must consider eliminating the Part B requirement based on the failure of DOD to implement the administrative process required to support this provision. Congress must not expand complex bureaucratic requirements of government programs without adding sufficient staff to accomplish the task.

PREPARED STATEMENT OF THE CALIFORNIA INDUSTRY AND GOVERNMENT COALITION
ON PM-10/PM-2.5

Mr. Chairman and Members of the Subcommittee: On behalf of the California Industry and Government Coalition on PM-10/PM-2.5, we are pleased to submit this statement for the record in support of our fiscal year 1999 funding request of \$750,000 for the California Regional PM-10/PM 2.5 Air Quality Study.

The San Joaquin Valley of California and surrounding regions exceed both state and federal clean air standards for small particulate matter, designated PM-10/PM-2.5. The 1990 federal Clean Air Act Amendments require these areas to attain federal PM-10/PM-2.5 standards by December 31, 2001, and the proposed PM-2.5 by mid-2003. Attainment of these standards requires effective and equitable distribution of pollution controls that cannot be determined without a major study of this issue.

According to EPA and the California Air Resources Board, existing research data show that air quality caused by the PM-10/PM-2.5 problem has the potential to threaten the health of more than 3 million people living in the region, reduce visibility, and impact negatively on the quality of life. Unless the causes, effects and problems associated with PM-10/PM-2.5 are better addressed and understood, many industries will suffer due to production and transportation problems, diminishing natural resources, and increasing costs of fighting a problem that begs for a soundly researched solution.

PM-10/PM-2.5 problems stem from a variety of industry and other sources, and they are a significant problem in the areas that are characteristic of much of California. Typical PM-10/PM-2.5 sources are dust stirred up by vehicles on unpaved roads, and dirt loosened and carried by wind during cultivation of agricultural land. Soil erosion through wind and other agents also leads to aggravation of PM-10/PM-2.5 air pollution problems. Chemical transformation of gaseous precursors are also a significant contributor to PM-2.5, as combustion sources.

Several aspects of the research are important to the U.S. Department of Defense:

- DOD has a number of facilities within the affected region, such as Edwards Air Force Base and China Lake. Degradation of air quality and visibility could impact their operations.
- Poor air quality also degrades the health and quality of life of personnel stationed at Valley bases.
- Operations at DOD facilities in the Valley produce emissions which contribute to the Valley's air quality problem.
- Transport out of the Valley may impact operations in the R-2508 airspace in the Mojave Desert. Visibility reduction in particular could interfere with the ability to conduct sensitive optical tracking operations at DOD desert test ranges.

The Department of Defense is a double stakeholder with respect to the PM-10/PM-2.5 issue and this important study. DOD activities not only contribute to the problem, they also are negatively affected by it. The importance of this study on PM-10/PM-2.5 is underscored by the need for more information on how the federal Clean Air Act Amendments standards can be met effectively by the business community, as well as by agencies of federal, state and local government whose activities contribute to the problem, and who are subject to the requirements of Title V of the Clean Air Act. There is a void in our current understanding of the amount and impact each source of PM-10/PM-2.5 actually contributes to the overall problem. Without a better understanding and more information—which this study would provide—industry and government will be unable to develop an effective attainment plan and control measures.

Our Coalition is working diligently to be a part of the effort to solve this major problem, but to do so, we need federal assistance to support research and efforts to deal effectively with what is essentially an unfunded federal mandate.

Numerous industries, in concert with the State of California and local government entities, are attempting to do our part, and we come to the appropriations process

to request assistance in obtaining a fair federal share of financial support for this important research effort. In 1990, our Coalition joined forces to undertake a study essential to the development of an effective attainment plan and effective control measures for the San Joaquin Valley of California. This unique cooperative partnership involving federal, state and local government, as well as private industry, has raised more than \$19 million to date to fund research and planning for a comprehensive PM-10/PM-2.5 air quality study. Our cooperative effort on this issue continues, and it is our hope that private industry, federal, state and local governments will be able to raise an additional \$8 million over the next two years to fund this important study.

To date, this study project has benefited from federal funding provided through USDA's, DOD's, Interior's and EPA's budgets—a total of \$10.6 million in federal funding. Through the Department of Defense, \$250,000 was appropriated in fiscal year 1996, and \$750,000 was provided in fiscal years 1997 and 1998. State and industry funding has matched this amount virtually dollar for dollar.

With the planning phase of the California Regional PM-10/PM-2.5 Air Quality Study nearly complete, a number of significant accomplishments have been achieved. These interim products have not only provided guidance for completion of the remainder of the Study and crucial information for near-term regulatory planning, they have also produced preliminary findings which are significant to the Department of Defense's (DOD) interests.

The Study is significant to DOD interests for a number of reasons. The San Joaquin Valley experiences some of the most severe PM episodes in the nation. The information being collected by the PM study is essential for development of sound and cost-effective control plans. Without this information, military installations such as Lemoore NAS in the San Joaquin Valley could be subjected to unnecessary or ineffective controls. In addition, previous studies have demonstrated that significant amounts of fine particles and their precursors from the San Joaquin Valley are transported through the Tehachapi Pass into the Mojave Desert, impacting operations at both Edwards AFB and China Lake NAWS. Good visibility is a mission-essential resource for both Edwards AFB and China Lake NAWS due to reliance on optically-based methods of collecting data at the testing ranges at each facility. Significant visibility reduction could compromise testing operations at these facilities. Effective control plans for the San Joaquin Valley, based upon the results of the PM study, will help mitigate visibility reduction in the Mojave Desert through the reduction of transport from the Valley.

To this end, the PM study is expending significant resources to provide an improved understanding of visibility in the San Joaquin Valley and the Mojave Desert and transport between these two air basins. A preliminary field monitoring program was conducted during the fall and winter of 1995/96. Extensive visibility and meteorological measurements were collected. This database is being analyzed to address the spatial and temporal patterns of visibility, determine the sources which contribute to visibility impairment, and provide an improved understanding of the wind flow patterns and transport routes between the Valley and the Mojave Desert. Preliminary results indicate that secondary ammonium nitrate is the largest contributor to visibility reduction in the Valley.

The results of these analyses are being used to design large scale field monitoring programs to be conducted in 1999 and 2000. These field programs will address both the annual and 24-hour PM-10 and PM-2.5 standards. Surface and aloft monitoring of air quality, meteorology, fog, and visibility will be conducted at a cost of over \$12 million. Final plans for these field studies are being developed, which will be carried out by numerous contractors over a broad area encompassing Central California, the Sierra Nevada Mountains, and the Mojave Desert. A database of the field study results will be completed in 2001, with air quality modeling and data analysis findings available in 2002. This timeline is ideally positioned to provide information for federal planning requirements as part of the new PM-10/PM-2.5 national ambient air quality standards.

The Department of Defense's prior funding and participation have enabled these projects to occur. Continued support by DOD is essential to implement a full scope of visibility and transport-related programs and to ensure that DOD concerns are met.

For fiscal year 1999, our Coalition is seeking \$750,000 in federal funding through the U.S. Department of Defense to support continuation of this vital study in California. We respectfully request that the Appropriations Subcommittee on Defense provide this additional amount in the DOD appropriation for fiscal year 1999, and that report language be included directing the full amount for California.

The California Regional PM-10/PM-2.5 Air Quality Study will not only provide this vital information for a region identified as having particularly acute PM-10/

PM-2.5 problems, it will also serve as a model for other regions of the country that are experiencing similar problems. The results of this study will provide improved methods and tools for air quality monitoring, emission estimations, and effective control strategies nationwide.

The Coalition appreciates the Subcommittee's consideration of this request for a fiscal year 1999 appropriation of \$750,000 for DOD to support the California Regional PM-10/PM-2.5 Air Quality Study.

PREPARED STATEMENT OF MAJ. GEN. ROGER W. SANDLER, AUS (RET.), EXECUTIVE DIRECTOR, RESERVE OFFICERS ASSOCIATION OF THE UNITED STATES

Mr. Chairman and Members of the Committee: On behalf of the many members of the Reserve Officers Association from each of the uniformed services, I thank you for the opportunity to present the association's views and concerns relating to the Reserve components and the Defense Appropriations Bill for fiscal year 1999. In the National Defense Authorization Act for Fiscal Year 1991, the Congress stated that "the overall reduction in the threat and the likelihood of continued fiscal constraints require the United States to increase the use of the Reserve components of the Armed Forces. The Department of Defense should shift a greater share of force structure and budgetary resources to the Reserve components of the Armed Forces. Expanding the Reserve components is the most effective way to retain quality personnel as the force structure of the Active components is reduced * * *. The United States should recommit itself to the concept of the citizen-soldier as a cornerstone of national defense policy for the future."

RESERVE COMPONENT COST-EFFECTIVENESS

ROA has long maintained that a proper mix of Active and Reserve forces can provide the nation with the most cost-effective defense for a given expenditure of federal funds. Reservists provide 35 percent of the Total Force, but cost only 8 percent (\$20.7 billion) of the fiscal year 1999 DOD budget. They require only 23 percent of active-duty personnel costs, even when factoring in the cost of needed full-time support personnel. We need only consider the comparable yearly personnel (only) costs for 100,000 Active and Reserve personnel to see the savings. Over a 4-year period, 100,000 Reservists cost \$3 billion less than 100,000 Active duty personnel. If the significant savings in Reserve unit operations and maintenance costs are included, billions more can be saved in the same period. ROA is not suggesting that DOD should transfer all missions to the Reserve, but the savings Reservists can provide must be considered in force-mix decisions. It is incumbent upon DOD to ensure that each service recognizes these savings by seriously investigating every mission area and transferring as much structure as possible to the Reserve components.

ARMY RESERVE

Today's Army is smaller now than at any time since before WWII. Since 1989, the Army has reduced its ranks by more than 630,000 soldiers and civilians and closed over 700 installations worldwide.

With the downsizing of America's Army and the transfer of much of the Army's combat service (CS) and combat service support (CSS) missions into the Reserve, the Army Reserve, while only 20 percent of the Total Army, is now structured and missioned to perform 47 percent of the Army's CSS and 32 percent of the Army's CS missions. Its "first-to-fight" units are prepared to deploy on short notice.

The fiscal year 1999 budget requests for USAR personnel, and operation and maintenance, are bare bones. The USAR's share of the Army's \$64.3 billion request in the fiscal year 1999 DOD budget request is 5.3 percent or \$3.2 billion (Reserve Personnel, Army—\$2 billion and Operation and Maintenance, Army Reserve—\$1.2 billion). Both RPA and OMAR need considerable plus-ups to fully fund known requirements identified during the development of the President's Budget, but fell below the funding line. Critical and executable funding shortfalls in the RPA and OMAR areas alone exceed \$190 million.

Reserve personnel, Army (RPA).—Even though the Army Reserve is downsizing to a programmed fiscal year 1998 end strength of 208,000. The President's RPA budget request for \$2 billion is inadequate to resource USAR personnel and unit training, education, manning and support.

The RPA budget request understates the actual executable/critical shortfall by at least \$78 million. Listed are the executable critical shortfalls:

	<i>In millions</i>
Professional Development Education (PDE)	\$7.3

	<i>In millions</i>
Mobilization Training for the IRR	30.3
Overseas Deployment Training	10.5
Health Professions Scholarship Program	5.1
Full-Time Support (FTS)	25.0
Total	78.2

Professional development education (PDE).—The fiscal year 1999 RPA PDE training budget is funded at only 45 percent of its requirement, underfunding it by at least \$50 million. This \$50 million shortfall forces the USAR to limit PDE of some unit, and many IMA and IRR personnel. With adequate resourcing, soldiers, currently forced to attend schooling in lieu of collective training with their units during AT, will be able to train and become educationally and professionally qualified, enhancing unit readiness. The executable/critical PDE shortfall is \$7.3 million.

Individual Ready Reserve (IRR) training.—IRR Mobilization and educational training accounts are underfunded, severely limiting IRR opportunity to receive school training or the PDE required for promotion. 45,000 IRR soldiers are unqualified for known mobilization requirements. The training shortfall exceeds \$235 million. The executable/critical shortfall is \$30.3 million.

Overseas deployment training (ODT).—ODT provides forward presence and nation-building activities in support of CINC missions. Previously an average 18,000 USAR soldiers deployed annually to 50 nations providing 378,000 mandays of cost-avoidance for AC PERSTEMPO and OPTEMPO. The fiscal year 1999 budget contains no ODT funding. The ODT executable/critical shortfall is \$10.5 million.

Health professions scholarship program (HPSP).—HPSP, the principal source of the AC's physicians and dentists, provides tuition and financial assistance to Army Medical Department students during their medical and dental professional training. The HPSP critical/executable shortfall is \$5.1 million.

Full-time support (FTS).—The USAR FTS level is 9 percent, much below DOD's 17 percent FTS average for the other RC's. FTS allows USAR unit members to take full advantage of limited training time and offers the most flexibility in improving unit readiness. Since 1990 USAR FTS has been reduced by almost 6,000 personnel, a 20 percent reduction. To reach a 10 percent FTS level in fiscal year 1999, the USAR requires an increase of 1,000 AGR positions. We urge Congress to add \$25 million to the RPA request. This will build the FTS program by 1,000 AGR's and raise the FTS level to 10 percent.

RPA summary.—Army Reserve personnel readiness, motivation, and willingness to continue as volunteers will decline if soldiers are denied the opportunity to receive necessary skills training and the PDE required for promotion. Added funding will increase the size of the FTS program to 10 percent. We urge the Congress to add \$78.2 million to the RPA budget to fund critical training and manning shortfalls for TPU, IRR, IMA, HPSP, and FTS personnel.

Operations and maintenance, Army Reserve (OMAR).—The fiscal year 1999 DOD budget request for the Army Reserve Operations and Maintenance (OMAR) account is \$1.2 billion. The executable and critical OMAR shortfall in the fiscal year 1999 request for recruiting and advertising, OPTEMPO, information management, and the backlog of maintenance and repair is \$105 million. Critical shortfalls follow:

	<i>In millions</i>
Recruiting and Advertising	\$13.0
Operation Tempo	20.8
Information Management	32.1
Real Property Maintenance	40.0
Total	105.9

Recruiting and advertising.—The USAR request is critically underfunded by at least \$13 million. This severely limits multimedia, print, and contractual advertising during this period of difficult recruiting. The \$16.6 million request is only 33 percent of the requirement. The executable/critical shortfall is \$13 million.

Army Reserve OPTEMPO.—USAR OPTEMPO is funded at only 52 percent of the requirement. Ninety-four percent of all USAR tactical units are aligned to support AC MTW requirements. Adequate OPTEMPO funding is necessary to ensure trained and ready units. The OPTEMPO critical/executable shortfall is \$20.8 million.

Information management (IM).—USAR IM accounts are not resourced to keep pace with the cost of operations and new technology, severely degrading USAR IM. The critical/executable shortfall is \$32.1 million.

Real property maintenance.—The USAR operates facilities in approximately 1,400 locations worldwide. Real property maintenance is funded at only 39 percent. Re-

sources are applied only to the most critical maintenance and repair requirements, forcing commanders to use other under-resourced accounts to fund emergency repairs. The Backlog of Maintenance and Repair requirement is underfunded by at least \$97 million. The critical/executable shortfall for fiscal year 1999 is \$40 million.

OMAR summary.—There is at least a \$105 million executable/critical OMAR shortfall in this budget request that will force the USAR to further reduce equipment and facility maintenance, OPTEMPO, and supply purchases. Quality of life issues and lack of essential advertising will continue to negatively affect recruiting and retention. We urge the Congress to add \$105.9 million to support these neglected and critically underfunded USAR OMAR programs.

National Guard and Reserve equipment (NG&RE) request.—OSD, in its February 1998 National Guard and Reserve Equipment Report for fiscal year 1999, states that the USAR has 67 percent of its required equipment pacing items and 68 percent of its ERC A equipment-on-hand (EOH). This represents an equipment shortfall that exceeds \$1.4 billion. Realistically, EOH includes substituted equipment, some that is not compatible with Active Army equipment.

Compatibility problems degrade many USAR CS and CSS capabilities: Reserve units are unable to communicate with supported units; huge burdens are placed on the logistics systems to deliver and stock multiple repair parts and fuel supplies, restricting the mobility, refueling, and maintenance of equipment. Combat multipliers achieved by modern equipment are severely degraded requirements to sustain multiple models of old and new equipment.

The lack of modern test, measurement, and diagnostic equipment (TMDE) in USAR CSS units tasked to maintain modernized AC units is a major problem. Without the required TMDE, many units are unable to perform IDT on the equipment for which wartime proficiency is required. With many USAR units in the Force Support Package (FSP), any tactical vehicle or TMDE equipment incompatibility between USAR FSP units and supported units, degrades support of the combat force.

The greatest relief to USAR equipment shortages is the NG&RE Appropriation. Since 1981 the USAR has received, through NG&REA and the help of Congress, over \$1 billion in equipment. Without the appropriation the USAR would still be below 50 percent EOH.

The USAR requires approximately \$300 million each year just to modernize its equipment and be compatible with the equipment entering the Army's inventory. Major shortfalls include maintenance equipment, TMDE, trucks (M917A1 dump, M916A2 tractor), essential ESP upgrade kits (5T, M915), trailers, generators, forklifts, all-terrain cranes, night vision devices, floodlights, welding shops, steam cleaners, LADS, medical equipment, small arms simulators, engineer equipment (hydraulic excavator, roller vibratory type II), M88A1E recovery vehicles, CH-47D helicopter, and the funding to buy miscellaneous equipment. We urge the Congress to add \$200 million in the NG&REA to fund critically needed equipment for the USAR.

SUMMARY

The Army Reserve is a full partner in America's Army, supplying 73 percent of the RC units called for Operation Joint Endeavor/Guard. To maintain and improve current readiness levels the USAR must be properly resourced. USAR readiness is dependent upon adequate funding levels required to resource: the training of USAR TPU, IMA and IRR personnel; increased levels of FTS; necessary OPTEMPO; recruiting and retention of quality soldiers; the repair and maintenance of facilities; improved quality of life; and the procurement of modern compatible equipment. The combined RPA and OMAR budget requests for \$3.2 billion, not counting NG&REA, are critically underfunded by at least \$190 million. We urge Congress to add the necessary funding to train, support, and equip the dedicated professionals of the Army Reserve.

NAVAL RESERVE

The Naval Reserve budget remains in decline when adjusted for inflation, despite its significant compensating leverage. In this regard, it would make more sense, in light of the decreased, but nevertheless continued threat, and the likelihood of enduring fiscal constraints, to increase rather than decrease the use of the Naval Reserve, as noted in the Sense of the Congress provision contained in the Fiscal Year 1991 DOD Authorization Act. Despite funding cuts, the Navy is increasingly employing the Naval Reserve force. Unfortunately, the budget submission does not reflect this increasing responsibility. The Naval Reserve is not a full partner when the issue boils down to competition for limited resources.

Operations and maintenance funding.—The Naval Reserve provides continual OPTEMPO/PERSTEMPO relief for the regular force beyond that which occurs dur-

ing annual training (AT) periods. There is, however, no reimbursement from the Regular component for this additional support. Accordingly, ROA urges that operations and maintenance funding be exempt from any correlation to a reduction in end-strength.

Funding shortfalls—personnel.—Approximately 15 percent of all officers and 25 percent of all enlisted personnel will not receive AT orders in fiscal year 1998, whereas as recently as fiscal year 1994, AT waivers were granted only under limited circumstances. Furthermore, USNR AT is budgeted, and generally performed, for 12 days, rather than the 14 days prescribed for the other Reserve components (except the Coast Guard). Finally, AT is budgeted at 90 percent of the historical rates. At the same time, the Navy has significantly reduced ADT/ADSW funding, used for CINC support. The Naval Reserve, in proportion to end-strength, receives less ADT/ADSW support than any other Reserve component. As a consequence of insufficient ADT/ADSW funding and of the increasing demands for Reserve manpower from the fleet CINC's, the Naval Reserve has used AT funding for fleet support. Consequently, readiness, training, and schooling required for advancement and promotion are being adversely affected.

Funding flexibility.—Title 31 U.S. Code, Section 1301(a), requires that appropriated funds only be used for programs and purposes for which the appropriation is made. An exception, however, has been enacted to permit the expenditure of RPN funds for functions performed by Reservists within the unified intelligence command umbrella and for DOD counter-narcotics efforts, with reimbursement to the RPN account without reprogramming. There are, however, other examples where ready reimbursement would facilitate the ready use of Reserves. Accordingly, ROA recommends that the provisions of section 1301(a) be modified to expand the authority for reimbursement to Reserve personnel accounts, without reprogramming, for all programs.

Equipment modernization.—ROA has identified unfunded Naval Reserve equipment requirements for consideration by Congress for addition to the administration's request for fiscal year 1999, in either the NG&RE appropriation or as earmarked additions to the Navy's traditional procurement appropriations. These are: H-60's (about 22) at a total cost of approximately \$450 million; Naval coastal warfare/littoral surveillance systems at an estimated total cost of \$130 million; C-9 replacement A/C (14) at a total cost of about \$675 million; F/A-18 ECP mods at a total cost of about \$50 million; expeditionary warfare force equipment at a total cost of about \$140 million; P-3C update III kits at a total cost of about \$180 million; and computer-based training at a total cost of about \$4 million.

MARINE CORPS RESERVE

Funding shortfalls.—The request to support the Marine Corps Reserve appears to be underfunded in the Operations and Maintenance, Marine Corps Reserve (O&M,MCR) and Reserve Personnel, Marine Corps Reserve (RP,MCR) appropriations. Additional O&M funds are needed for individual equipment issue and to provide required training, maintenance, and depot level repairables. The Marine Corps Reserve personnel appropriation also appears underfunded. Second to the Navy, the Marine Corps Reserve receives less ADT/ADSW support than any other Reserve component. The major deficiency in this appropriation is in the area of Active Duty for Special Work (ADSW).

Equipment modernization.—To achieve the readiness necessary to quickly mobilize and augment the Active Marine Forces in time of national emergency, Marine Forces Reserve units must be equipped in the same manner as their Active force counterparts. In this regard, the Initial Issue Program, is a top priority. The Marine Corps Reserve is also in need of ECP-560's to make its F/A-18 aircraft compatible with the F/A-18C's and D's utilized by the active force at a cost of \$36 million, and two T-39 replacement aircraft at a cost of \$9 million.

COAST GUARD RESERVE

We are fully aware that this committee is not responsible for the direct funding of the Coast Guard or the Coast Guard Reserve. Nevertheless, as funding for the DOD and the Coast Guard remains constrained, it is vital to be farsighted to ensure a continued robust sea power. The Coast Guard's people, systems, and platforms provide important national and international capabilities that complement the U.S. Navy. With a Navy of 116 surface combatants, and regional instability, the Coast Guard's cutters—along with several hundred coastal patrol boats—take on new significance. In this regard, the Coast Guard provides a trained, capable, and ready force for small-scale contingency operations, and force protection in major war.

Coast Guard selected reserve strength.—The fiscal year 1999 authorization request is to maintain the Coast Guard Selected Reserve end-strength at the 8,000 level. While recognizing that the Coast Guard Reserve's end-strength remains below 7,600 for the second consecutive year, we have serious concerns regarding the administration's proposal for an appropriated end-strength of only 7,600 in view of the fact that the Commandant has conducted an in-depth study that clearly indicates and justifies a requirement for in excess of 12,000 Coast Guard Reservists.

We are particularly concerned that the administration and the Coast Guard have not succeeded in recruiting Reservists to end-strength. We are further very concerned over the impact that the failure to recruit may have on future authorized and appropriated end-strength in the Coast Guard Reserve. It must be noted that all the other armed services are meeting their recruiting goals for Reservists (the Army within the established range of plus, or minus, 2 percent). The immediate problem, therefore, appears unique to the Coast Guard Reserve.

Coast Guard Reserve funding.—The administration has requested \$67 million for the Reserve Training (RT) appropriation for fiscal year 1999, and it is anticipated that \$25 million of this amount is intended for reimbursement to operating expenses. Given the present procedures for reimbursement for operating expenses and direct payments by the Coast Guard Reserve, this is the minimum needed to fund a full training program for 7,600 personnel. Even at this minimal funding level, Coast Guard Reservists would continue to receive only 12 days of AT each year (all the other armed services, except for the Navy, are entitled to 14 days' AT by departmental regulation). In addition, it should be noted that the \$67 million funding level is based on 90 percent funding of on-board strength, as opposed to previously established procedures of budgeting for 90 percent of authorized strength.

Additional funding required to support the full 8,000 level authorized would appear to be \$72 million. It should, however, be noted that the fiscal year 1998 appropriations bill, in appropriating \$67 million for the Coast Guard Reserve, limits the amount of Reserve training funds that may be transferred to operating expenses to \$20 million given the substantial amount of Reserve augmentation work provided by the Reserves in direct support.

Public Health Service.—ROA is also fully aware that this committee is not directly responsible for oversight over the Public Health Service. Nevertheless, some Public Health Service oversight is necessary to ensure that the Public Health Service is, like the Coast Guard, capable of providing needed personnel to DOD in time of national emergency. In particular, the unique expertise of the commissioned Corps of the Public Health Service and its Reserve component is vital to the nation's defense to biological attack. In this regard, ROA requests the committee's review of utilization of the inactive Reserve component of the U.S. Public Health Service and establishment of a full-time Office of Reserve Coordination.

AIR RESERVE COMPONENTS AGR OFFICER CONTROLLED GRADE EXECUTION

Air Force Reserve Command (AFRC) and the Air National Guard (ANG) need an increase of 23 colonels and 41 lieutenant colonels AGR Controlled Grades, despite an under execution of 48 colonels and 90 lieutenant colonels on September 30, 1997. They filled the authorizations with majors, in addition to utilizing all of the major authorizations. Although the numbers still showed an under execution of 48 colonels and 11 lieutenant colonels, there were good reasons:

—During this period, the AFRC and ANG placed majors in lieutenant colonel positions to season future senior leadership and establish an experience base in the program. The colonel and lieutenant colonel authorizations were allocated to the field with the plan to promote members upon eligibility. These members are now being promoted to the higher grades.

—Thus, as of March 31, 1998, the AFRCE and AFRC used all officer controlled grades. As reflected below, within a 6-month period, seven lieutenant colonels were promoted to colonel and nine majors to lieutenant colonel (seven lieutenant colonel vacancies filled by seven majors plus two additional promotions). Such promotions are essential to career progression and retention.

March 31, 1998	COL	LTC	MAJ
Ceiling	274	672	643
Execution ¹	233	584	774
Balance	- 41	- 88	+ 131
Use of Higher Grade	+ 43	+ 88	- 131

	March 31, 1998	COL	LTC	MAJ
Execution Delta		+2	.....	.....

¹ Minus Counterdrug Strength.

—AFRC's and ANG's continuing integration into Joint, Departmental and MAJCOM Headquarters, as well as significant growth in operational units, generates higher grade position requirements. The need to recruit and retain highly trained and experienced prior-service personnel necessitates hiring at higher grade levels.

—AFRC's and ANG's end strength grows significantly from fiscal year 1996 to fiscal year 1999: from 634 to 991 for AFRC (+357) and from 10,066 to 10,905 for ANG (+839).

Without legislative relief in fiscal year 1999, severe personnel management actions are necessary: options include promotion freezes, voluntary early retirements and hiring at unacceptably low experience levels. Force structure alternatives include delaying mission starts, reversing resource mix decisions, and deliberately under executing funded end strength. (AFRC expects to under execute the fiscal year 1998 AGR program by 28 solely due to grade constraints.)

These highly disruptive actions to the full-time support program will jeopardize recruiting and retention, new mission growth, end strength execution and Total Force integration.

ROA strongly urges the Congress to approve the required 23 colonel and 41 lieutenant colonel controlled grades for AFRC and ANG.

GENERAL RESERVE COMPONENT ISSUES

Full-time support.—Increased reliance means increased requirements for readiness. Increased readiness in the Reserve components demands adequate levels of full-time support. The percentage of full-time support available in Reserve units has been shrinking under the pressure of budget reductions. ROA urges the Congress to authorize full-time support levels of at least 12 percent as recommended by the Assistant Secretary of Defense for Reserve Affairs in order to provide the readiness required by today's increased reliance upon the Reserve components.

Reserve component recruiting.—Recruiting requirements are not overtaken by a military drawdown—new recruits are required to ensure force viability. While the Reserve components, with the exception of the Coast Guard, have not yet failed to meet their recruiting requirements, all of the Reserve chiefs are concerned that they may be faced with recruiting shortfalls in the future. While recruiting restraints are not always apparent, there are a number of known factors which are negatively affecting enlistment and commissioning. Perhaps the greatest factor is the turbulence and uncertainty caused by the drawdown and base realignment and closure actions. The positive attitude toward the military that the services enjoyed prior to but particularly during the Gulf War is eroding. A military career is no longer perceived as being as attractive as it was during most of the past decade.

This committee can and should do much to make careers in the Reserve components more attractive, but as it becomes more difficult to attract highly qualified personnel, it is especially important that requests for recruiting be funded.

Health affairs.—Historically, military retirees have been promised that they have a right to medical care in military treatment facilities following retirement. Military retirement pay and military medical care at age 60 are among the most important reasons citizen-soldiers pursue a career in the Reserve forces.

There has been and continues to be erosion of health care benefits for retired military personnel and their eligible dependents because of the end of the Cold War and reduced wartime medical requirements; reductions in military medical personnel; and base closures and realignments under the Base Closure and Realignment Commission. ROA recommends improving military retiree access to space-available care in DOD medical treatment facilities and allowing Medicare-eligible military retirees and their eligible dependents to enroll in TRICARE Prime. We also recommend allowing Medicare-eligible military retirees and their eligible dependents who cannot get care in DOD medical treatment facilities and who lose their CHAMPUS/TRICARE eligibility (including any prescription drug coverage) at age 65 to enroll in the Federal Employees Health Benefits Program (FEHBP). Finally, ROA recommends allowing all retired military personnel and their eligible dependents to participate in the DOD Mail-Order Pharmacy Program.

Gulf war illnesses.—Since the Persian Gulf War in 1991, there has been clear and mounting evidence of numerous apparently disparate medical problems among those who served in the Persian Gulf area of operations during that time. Medical experts,

both within and outside government have been unable to identify any single cause for the numerous clinical symptoms that Gulf War veterans and some members of their families have presented. Moreover, many Gulf War veterans, especially members of the Reserve components, have had difficulty obtaining military medical treatment pending definitive diagnoses. ROA urges the Congress to ensure that appropriate health care and support are provided to veterans and their families with Gulf War illnesses without charge, pending medical determination of the causes of those illnesses. ROA also urges the Congress to provide supplemental appropriations to pay for such health care and support.

Income protection for mobilized Reservists.—The Ready Reserve Mobilization Income Insurance Program was one of the most important programs that the federal government ever offered to the individual Reserve member. It provided a measure of economic security that demonstrated the government's commitment to the concept of the citizen-soldier and its recognition of the value that the citizen-soldier brings to this all-volunteer Total Force. Its cancellation, though programmatically understandable, was viewed by many Reservists as a major breach of faith. We believe that this program filled a critical need, and that amended and properly marketed and implemented, it could prove itself to be a significant element in maintaining Reserve and Total Force personnel strength and readiness. ROA urges the Congress to direct the Secretary of Defense to prepare a report setting forth his views of the need for and desirability of a program to provide income protection for involuntarily mobilized Reservists. We further urge that the report assess the need for and desirability of a program of small business loans for self-employed Reservists who are involuntarily mobilized.

Grade of Reserve component chiefs.—The current grade of the chiefs of the armed services' Reserve components is O8 (major general/rear admiral, upper half). Public Law 104–201, the National Defense Authorization Act of 1997, contained provisions establishing the chiefs of the services' Reserve components as the commanders of those components, and directing the Secretary of Defense to submit to the Congress, within six months, a report containing his recommendations regarding the "statutory designation of the positions and grades of any additional general and flag officers" in the Reserve commands and offices established by that act. ROA recommends that the Secretary of Defense issue the report mandated by Public Law 104–201 and that he recommend the immediate promotion of the reserve chiefs/commanders of the armed services to the rank of lieutenant general/vice admiral. ROA also recommends that the Reserve chiefs and other Reserve general and flag officers on active duty be excluded from statutory and administrative ceilings on active duty general and flag officers. ROA further recommends that absent the report described above, the Congress include provisions in the Fiscal Year 1999 National Defense Authorization Act setting the rank of the Reserve chiefs at the three-star level.

Commissaries.—The Congress has authorized unlimited access to exchanges, but in expanding commissary privileges, it limited commissary use to 12 a year. ROA believes that this 12-day restriction is not cost-effective and should be deleted. By eliminating the printing, distribution and control of the commissary privilege card, DOD has estimated that it would save the Department of Defense \$13.5 million annually. The Defense Commissary Agency calculated that the negligible increased use of the commissary by Reservists would require no additional DOD funding. We strongly urge the Congress to address this issue and increase commissary access from 12 to 24 visits per year for satisfactorily participating Ready Reservists and retirees.

Space available travel.—Extending space available travel privileges to participating Ready Reserve members and their dependents simply recognizes the essential nature and value of the Reserve forces' contribution to the Total Force. The Reserve components of our Armed Forces are full partners in the defense of the nation, full partners that are increasingly called upon to support contingencies in all parts of the world and to contribute their frequently unique expertise to operations that could not otherwise be contemplated. Yet, in this issue they are not treated as full partners.

Reservists, who will continue to constitute an increasingly critical element of our total military force, view full access to space available travel as a major equity and morale issue, even if they personally are unable to avail themselves of the privilege. Their support is essential to the Total Force. Congressional support is essential if they are to be accorded the privileges that are commensurate with their increasing contributions to the good of the nation. ROA urges the Congress to support increased space available travel privileges for eligible members of the Ready Reserve and to their dependents.

Concurrent receipt of military retired pay and veterans compensation.—Currently military retirees receiving veterans disability compensation have the amount of that

compensation deducted from their military retired pay, while other federal retirees receive their full retirement in addition to whatever disability compensation they may be receiving from the Department of Veterans Affairs. Congressman Bilirakis has introduced legislation to help remedy this situation and grant relief to veterans. ROA continues to deplore this inequity and urges the Congress to remedy the situation by enacting legislation authorizing concurrent receipt of both military retirement and veterans disability compensation.

CONCLUSION

Thank you for the opportunity to represent the Reserve Officers Association's views on these important subjects. Your support for the men and women in uniform, both Active and Reserve, is sincerely appreciated. I'll be happy to answer any questions that you might have.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF ENERGY SERVICE COMPANIES

The National Association of Energy Service Companies (NAESCO) appreciates the opportunity to submit the following written testimony in support of the Department of Defense (DOD) fiscal year 1999 budget request for energy efficiency contracting and other energy efficiency project support services.

NAESCO is a trade association of energy service companies (ESCO's) and their trade allies, including utility and manufacturing companies. NAESCO's current membership of over 140 organizations includes firms involved in the design, manufacture, financing and installation of energy efficiency equipment and services in the private and public sectors, including Federal buildings.

The thousands of energy efficiency retrofits installed by NAESCO member companies to date enable energy consumers to save an average of 25 percent of their previous building energy costs. NAESCO's energy service company (ESCO) members offer capital constrained customers the opportunity to upgrade their facilities without any up-front capital expenditures. In addition, ESCO's assume the performance and technical risk so that repayment for project costs comes only from measured and verified energy savings generated by a successful, ongoing project. In this way, the cost of an energy efficiency project is paid entirely from energy savings, requiring no additional budget outlay to support the capital investment.

SUPPORT FOR DOD'S 1999 BUDGET REQUEST FOR COMPETITIVE ENERGY EFFICIENCY SERVICES

NAESCO supports DOD's 1999 budget request for energy conservation programs, to the extent that those programs encourage and support the competitive procurement of private sector energy efficiency services. In addition, NAESCO supports the DOD's centralization of support services for energy savings contracting to enable implementation that creates more efficient and expeditious contracting procedures in all cases, by the provision of site-appropriate levels of support.

DEPARTMENT OF DEFENSE INITIATIVES IN SUPPORT OF FEDERAL BUDGET SAVINGS THROUGH ENERGY SAVINGS PERFORMANCE CONTRACTING

The DOD has an excellent history of reliance on the private sector to provide energy efficiency services. In many cases, DOD has relied upon utility sole source energy supply contracts for these services, even though specific legislation was passed by Congress, in the 1992 Energy Policy Act, creating competitive Energy Savings Performance Contracts (ESPC's).

During the Senate Energy Committee's hearing on competitive energy efficiency procurement, held on September 25, 1997, DOD representatives argued that Congress did not need to pursue legislation to promote competition in the federal procurement of energy efficiency services. According to the DOD, competition already is on the increase in this area and the use of sole source utility contracts is on the decline. NAESCO respectfully requests that the Subcommittee strongly encourage DOD accelerate the trend and to ensure that the Government receive the benefits of competition for procurement of these services.

CENTRALIZED CONTRACTING INITIATIVES

The DOD has taken the initiative, ahead of other Federal agencies, in developing centralized contracting offices, in particular at the Huntsville Army Base and at Tyndall Air Force Base. NAESCO supports this move since it offers the potential to decrease the administrative costs of implementing Energy Savings Performance

Contracts (ESPC's) by creating centers of procurement and contract management expertise. Therefore, NAESCO fully supports specific line item ("fenced" funding) for energy conservation necessary to support this infrastructure. Without such fenced funding, the monies generally allocated to operations and maintenance simply go to other mission-related functions.

However, NAESCO would like to suggest that some flexibility in the organizational structure be encouraged. In the experience of our member companies, each project site identified for an energy efficiency retrofit tends to have unique characteristics. The level of knowledge, understanding and skills related to energy efficient equipment, the potential for energy and cost savings, and the facility upgrades available through energy efficiency retrofits varies widely among facility managers and contracting officers. Also, there is a broad range of capability in terms of the contracting tools available for procuring these services. At some project sites, facility engineers, contracting officers and legal counsel may be poorly equipped to oversee, procure and develop these highly cost effective projects. In cases like this, the centralized offices can offer invaluable support services to help make energy efficiency projects possible.

At other sites, however, facility staff and their on-base support personnel may be the most qualified to bring such a project together. In cases such as this, mandatory exclusive use of centralized office personnel has the potential actually to increase the cost of these projects through the duplication of efforts and the inefficient use of personnel time.

We strongly encourage the DOD and Appropriators to ensure that the centralization of support services for energy savings contracts creates more efficient and expeditious contracting procedures in all cases, by the provision of site-appropriate support.

ALL QUALIFIED ENERGY SERVICE PROVIDERS SHOULD BE GIVEN EQUAL ACCESS TO THE FEDERAL MARKET

Federal agencies have adopted the view that sole-source contracting with existing regulated utility companies is a preferred method of obtaining energy efficiency services, when compared with the competitive procurement of Energy Savings Performance Contracts (ESPC's). This reliance on the use of utility sole-source contracts violates Federal requirements for full and open competition. Utility power services historically have been procured on a sole-source basis due to the traditional recognition of the utility franchise. The national trend toward both wholesale and retail competition in the utility industry weakens this traditional unilateral relationship and there are questions about whether such a sole-source relationship is appropriate or beneficial in the changing marketplace. In addition, it has never been clear that the statutory authority for this sole-source power supply extended to the provision of energy efficiency services. The policy that DOD and other agencies have adopted, absent public review or comment, is that federal facilities may contract directly with utilities for energy efficiency services, but that all other providers must engage in a competitive procurement process.

The use of non-competitive procurement practices in energy efficiency contracting denies the Federal government and U.S. taxpayers the benefits of competition in the market for energy efficiency services. Furthermore, it is not supported by any rational justification. Therefore, NAESCO strongly encourages the DOD and Federal Appropriators to prescribe the use of competitive procedures for all providers when DOD is engaged in the procurement of energy efficiency services.

THROUGH THE COMPETITIVE PROCUREMENT OF ENERGY EFFICIENCY SERVICES, THE FEDERAL GOVERNMENT CAN REDUCE THE ENERGY COSTS BORNE BY AMERICAN TAXPAYERS

In the Federal sector, cost savings through energy efficiency investments enable agencies to pursue their missions while reducing budget outlays through reductions in infrastructure costs. However, the full benefits of energy efficiency investments will not be realized by the Federal Government or by the taxpayers if Federal agencies continue to pursue non-competitive practices in acquiring these services.

By using energy efficiency investments to reduce the costs of operating the federal infrastructure, Congress and the agencies will reduce the long term tax burden required to support federal operations.

CONCLUSION

The competitive procurement of privately funded energy efficiency investments in Federal facilities offers a win-win budget initiative for the Congress and the U.S. taxpayer. These initiatives will increase energy productivity by reducing the energy

consumption and therefore the dollar cost of operating and maintaining Federal facilities.

NAESCO supports DOD's 1999 budget request for energy conservation programs, to the extent that these programs encourage and support the competitive procurement of private sector energy efficiency services.

NAESCO supports the DOD's centralization of support services for energy savings contracting to the extent that it can be implemented in a way that creates more efficient and expeditious contracting procedures in all cases, by the provision of site-appropriate levels of support.

NAESCO strongly encourages the DOD and the Congress to continue to support a Federal-private sector initiative for reducing energy costs in Federal facilities. We further encourage the Congress and Federal agencies to provide U.S. taxpayers the maximum budget savings and other benefits available through these investments by employing competitive procedures for their procurement.

SUBCOMMITTEE RECESS

Senator INOUE. Our next hearing will be on May 13. At that time the committee will hear from the Secretary of Defense, the Hon. Bill Cohen. The hearing is recessed.

[Whereupon, at 4:27 p.m., Monday, May 11, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, May 13.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

WEDNESDAY, MAY 13, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:15 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Specter, Domenici, Shelby, Gregg, Hutchison, Inouye, Hollings, Bumpers, Lautenberg, Harkin, and Dorgan.

DEPARTMENT OF DEFENSE

OFFICE OF THE SECRETARY

STATEMENT OF HON. WILLIAM S. COHEN, SECRETARY OF DEFENSE

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Mr. Secretary, ladies and gentlemen, my apologies for being late. I had a little session on what has happened to the money that we used to have in this Appropriations Committee and why we do not have enough to respond to your needs.

Secretary COHEN. Well, I gave a brilliant opening statement in your absence. [Laughter.]

Senator STEVENS. Gentlemen and ladies, I do apologize. We welcome you as a former colleague and a great friend.

Yesterday the Secretary met with a delegation that went with Senator Inouye and me to Kuwait, Saudi Arabia, Bosnia, and the NATO headquarters, and it gave us an opportunity to report to him and the Joint Chiefs some of our observations and recommendations concerning the impact of deployments on our forces and the views of our allies on the presence and the roles involved in these activities.

I know that we probably left a lot on the table there, but we are determined to work with you and the Chiefs to ensure that we meet the needs of our troops and respond, to the greatest ability we can, particularly to the problem of morale in the forces, to ensure that we have the capability to meet the security challenges our Nation faces around the world.

Last year we commended you and General Austin for the presentation of the "Quadrennial Defense Review [QDR]". It is the right plan to take our military into the 21st century. Many of us have worked hard to ensure that in the bipartisan budget agreement,

the White House would agree to spending levels needed to implement the QDR recommendations.

Despite the good faith effort on all sides, I think we should all recognize that the amounts we agreed to are not sufficient to meet the needs for operations, quality of life, and modernization of our military. Deployments to Bosnia and Southwest Asia have consumed, in my judgment, the savings achieved through force reductions, lower inflation, and base closures. Environmental remediation and health care costs continue to grow. We cannot achieve the balance in spending we must secure for the future if we singularly pay the costs of maintaining the blockade of Iraq and the status quo in Bosnia.

I do not want to go into what we said to you yesterday, Mr. Secretary, but 1999 will be the fifth year for our deployment in the Bosnia region. Now we feel these costs must be included in our budget.

The committee understands the implications of the military having to pay for Bosnia out of the funds requested in the budget, and what we are trying to do is find out if the White House and the Office of Management and Budget in particular understand those implications. I believe there should be an increase in the caps so that we can take care of that problem and we should face it squarely.

But you have the tough job, my friend. We were pleased to work with you on the supplemental. I think it was a little bit late but it was in time to prevent the devastation that could have taken place as far as our armed services if we had not passed it.

Every member of this committee has worked with you to meet the needs of our forces. We are a bipartisan committee, and I think Senator Inouye and I pride ourselves in that fact.

In my judgment the administration and Congress must reconsider the spending levels set for defense in the balance of this period leading to the balanced budget in 2002. We cannot treat the missions, for which we are planning to stay for many years, as annual emergencies. We must have a new approach to our position in the world and on what the commander in chief decides to do with regard to carrying out our roles overseas.

I have taken too long. Despite the fact that I was late—I again apologize to you, but I want you to know that we are very sincerely trying to find some way to adjust this budget so we can meet the needs that you face.

Senator Inouye.

STATEMENT OF HON. DANIEL K. INOUE

Senator INOUE. Thank you very much, Mr. Chairman. I ask that my full statement be made part of the record.

Mr. Secretary, during the past many months, we have held many hearings, and throughout these hearings certain key words and phrases have been heard quite often: modernization, quality of life, deployment. But the one word that just about every witness seems to be concerned about is readiness, and that to me is the key to what we are discussing today. I can assure you that this committee is prepared to do whatever we can to make certain that our forces maintain the highest level of readiness.

Thank you very much.
[The statement follows:]

PREPARED STATEMENT OF SENATOR DANIEL K. INOUE

Good morning, I want to join our chairman in welcoming you here this morning. I must note, Mr. Chairman that it has been several years since a Secretary of Defense has testified before this subcommittee. And, I for one am very glad we could find a time that our current Secretary was able to join us.

For several years, this subcommittee has had as its practice a policy of hearing from the Secretary of Defense last, after all the other witnesses had testified. It has been our aim to take the information we have gathered and raise it to your attention. We have found this to be a very useful way to proceed for all of us.

During our hearings this year, one subject which has been raised repeatedly is readiness. There appears to be great concern with our ability to maintain a ready force in the future.

From our military leaders we learned that while modernization is still a key element of interest, it is readiness that is of greatest concern.

From our subcommittee members we have learned about items in which they are particularly interested. Many, but not all, are included in DOD's funding request.

I am sure we will find today's session most instructive and I look forward to your insight.

Senator STEVENS. Senator Hollings.

Senator HOLLINGS. Thank you, Mr. Chairman.

Senator STEVENS. Senator Lautenberg.

STATEMENT OF HON. FRANK R. LAUTENBERG

Senator LAUTENBERG. Just very briefly, Mr. Chairman. I welcome this opportunity to hear from the Secretary and commend him for the job he has done. We are very proud of the work that you have been doing.

I just want to say, Mr. Chairman, because you brought it up, and you do set just the right kind of tone I think of bipartisanship. We want to work together to accomplish our goals.

I do have some concern as a member of the Budget Committee, the ranking Democrat on the Budget Committee, about breaking the caps because we worked like the devil to get ourselves a balanced budget.

Senator STEVENS. Senator, I did not say break them. I said lift them. [Laughter.]

There is a difference.

Senator LAUTENBERG. OK. About changing the caps.

And here is the chairman of the Budget Committee just on time.

Senator DOMENICI. I am for raising the caps on defense. [Laughter.]

Senator LAUTENBERG. Well, I do not think it would be reasonable to lower them right now, but anyway I do not want internecine warfare here to take over.

I think that we ought to examine very closely the proposition that we finance the Bosnia operation on an emergency basis. I think we ought to struggle with the prospect of adding to the budget. I for one want to hold the caps where they are. That was almost a solemn promise that we made to the public, and I would like to see it maintained.

So, with that, I am ready for the debate to begin.

Thank you very much, Mr. Chairman.

Senator STEVENS. I understand that Senator Dorgan was next.

Senator DORGAN. Mr. Chairman, I have no opening statement. I am to go to the floor to speak at 10:30 on the national missile defense, and then I will return.

But thank you for the hearing.

Senator STEVENS. My apologies for being late.

Senator Harkin.

STATEMENT OF HON. TOM HARKIN

Senator HARKIN. I again join in thanking the Secretary for his great leadership at DOD. I know we are going to be talking about budgets and next year, but I hope, Mr. Secretary, we can spend a little bit of time talking about the recent events in South Asia while you are here this morning. Maybe we can get your insight and a little bit of overview of how you see things developing in South Asia.

Thank you, Mr. Chairman.

Senator STEVENS. Senator Gregg.

Senator GREGG. No, thank you, Mr. Chairman.

Senator STEVENS. Senator Domenici.

STATEMENT OF HON. PETE V. DOMENICI

Senator DOMENICI. Mr. Chairman, I just want to take a minute and say that while I personally could favor and probably vote for the money requested by the President as an emergency for the Bosnian effort, I really believe when you are 5 years into an effort, to continue to call it an emergency and to not face up to the realization that it is part of the defense budget and in some way claim that we are enforcing caps, when it is almost as day follows night, that as long as you are there, the money will not be put in the budget, it will be called an emergency, is making a mockery of the caps.

Now, there are other mockeries of the caps occurring regularly, and that is to create new entitlements that used to be appropriated accounts. That is a very interesting kind of approach.

Then to run around and say we have not broken the caps, we have just found a new way to spend the taxpayers' money that we had expected not to spend when we put the caps in seems to me to also be something that the American public would understand.

From my standpoint, I believe the time has come to be more realistic about the Defense Department's budget. If they cannot meet their responsibilities in Bosnia and the Middle East where we have these front-line engagements, if they cannot meet them without harming the defense budget that the President and we are approving, then we ought to be realistic and add it to the budget.

Frankly, I can recall—my friend, Senator Hollings, sitting right there, do you recall the last time we were confronted with a hollow military? Now, I am not saying we are there yet. How did we fix it? In the middle of Jimmy Carter's campaign for a second term, we put 5 percent real growth in a budget and it stuck. That was the first time we had a significant turnaround in what was moving dramatically toward a hollow military. Maybe it was already there.

You know, I do not say we are there yet, but you, Mr. Chairman, and others that know more than I, including Senator Inouye, are

worried about what is going on in terms of scavenging one airplane to keep another one going, and those kinds of things.

So, that is what I have to say about it, and I thank you for giving me a couple of minutes.

Senator STEVENS. Thank you.

Senator Bumpers.

Senator BUMPERS. Mr. Secretary, I wanted to ask you—

Senator STEVENS. These are opening statements.

Senator BUMPERS. You mean we are just now to opening statements? [Laughter.]

Mr. Secretary, you just got saved by the bell.

Senator STEVENS. I was late. I am sorry about that.

Senator BUMPERS. I have one but I will forego it.

Senator STEVENS. Thank you very much.

Secretary Cohen.

Secretary COHEN. Thank you for saving me, Mr. Chairman. [Laughter.]

SECRETARY COHEN'S OPENING STATEMENT

Mr. Chairman, it is a pleasure for me to be back before this committee, and let me say a couple of words before talking about my opening remarks.

When President Clinton asked me to serve in this capacity, the first thing he said to me is that he wanted to develop a bipartisan consensus in this country for a strong national defense and that was the principal reason he was asking me to forego my plans of becoming a private citizen and take this position.

It was that proverbial offer that could not be refused because the opportunity to represent the men and women in uniform in this country is one that everyone should extol and esteem, and it is something that I have held in the highest regard. And I did not reject that offer. I quickly accepted.

I must say that during the past 18 months, I have tried to maintain a very strong relationship with Members on this side of Capitol Hill as well as the other. You came down to the Pentagon with your CODEL that recently returned from Southwest Asia and from Bosnia to have a breakfast whereby you could convey to me and to the Chairman and Vice Chairman of the Joint Chiefs and other members—give them the benefit of your observations. That is precisely the kind of relationship that one should always have.

When we talk about if the Pentagon cannot meet its obligations, it is not the Pentagon. It is we, the country. So, what we have tried to do is to work not looking through one end of the telescope to the other side at the other end of the telescope, but rather looking at our national security needs from one perspective. I appreciate the friendship and the close cooperation we have had.

The QDR last year was really an effort, mandated by Congress, for the Department to examine itself, saying, where are we going as a strategy, what is going to be our strategy for the future, for the next 4 years but well beyond that? We came up with three words to define it: shape, respond, prepare.

The key aspect of that shaping is being forward deployed. I hosted a defense attachés' meeting last night at the State Department, and it was a remarkable experience to see some 86, 88 coun-

tries represented by their defense attachés walk through that receiving line and the enthusiasm they had, the admiration they have for this country. We are admired and, to some degree, envied the world over. I sit in the Pentagon and receive defense ministers, prime ministers, presidents, heads of state, foreign ministers, and frankly they come and we discuss ways in which they can replicate the quality of the people that we have in our service, the high standards that we have, the kind of technological superiority that we have demonstrated over the years. They want to be more like the United States and they want to have an association with us.

So, we are doing a lot of things right. We tend to open the morning paper and we can see the defects or the deficiencies, but I must tell you, having been in this position for 18 months, the overwhelming majority of the cases we are highly regarded and respected and we deserve that respect, I must tell you, by the quality of the people we have serving us and the leadership that they have.

So, it is within that context in terms of shaping the environment, we are shaping the environment of being forward deployed over in the Asia Pacific region. I think that redounds greatly to our benefit. We are shaping the environment in Europe, and we can talk about Bosnia and I am sure we will in a few moments. So, we are having an opportunity to shape world events in ways that are, nonetheless, favorable in spite of what we may see in the morning headlines, and we can discuss that in a moment. But overall, we are doing an outstanding job.

With respect to today's testimony, I have submitted a very brief opening statement. Let me just try to summarize a couple of quick points.

First of all, I want to thank you for your assistance on the non-offset supplemental for fiscal year 1998. That was important to help us continue the operations in Bosnia until the end of this fiscal year. It was obviously enormously helpful as far as continuing operations in Southwest Asia as we continue to try to contain Saddam Hussein.

I also want to thank the committee for the efforts it is making to resolve the disparity or dispute that we have in terms of the outlay problem as far as CBO's analysis and that of OMB. The outcome of that will have a major impact upon how we are able to fund the various programs that we have.

OVERVIEW OF FISCAL YEAR 1999 BUDGET

With respect to the 1999 budget, we have tried to place before you a very balanced and detailed laying out of the responsibilities we have as far as maintaining operations and maintenance, maintaining readiness, which Senator Inouye has just mentioned, and also preparing for the future. The shape-respond-prepare is part of that paradigm that we have that we have to be able to respond to a variety of crises all the way from the very small neo-operations, noncombatant evacuation operations, all the way up to a major conflict, be it in Korea or with a country like Iraq, in addition to defending our country's national security here at home.

The preparing part is one that I have taken as a specific challenge for myself. I recall that many times General Shalikashvili used to come before the Armed Services Committee, and he had a

chart that he put up and it showed what had happened to procurement since the height of the cold war and the level of funding that we had for purchasing modernized equipment. The line kept going down, and the promise was we would start going up. We would reach \$60 billion. Well, the problem was every time that General Shalikashvili kept coming up, he would show the line moving out. We cannot make it this year or next year. The line kept moving because we did not have enough money to put into procurement.

So, one of the things that I really pledged to myself that I would do is make that line go up, consistent with the representation that we were making to you each year that we come before you. Last year I said in fiscal year 1999 we would have \$49 billion for procurement. I was a little bit off. It is \$48.7 billion, but we are close. We expect to hit the procurement level of \$60 billion by the year 2001.

I can only do that if, in fact, the other aspects of the program are achieved, savings that I am looking for. I know that base realignment and closure [BRAC] is a four-letter word, but it is something that we have to look forward to in terms of getting some efficiencies and eliminating some of the overhead that we have is very costly.

In addition, I have done a number of things as far as trying to reform the way in which the Pentagon does business. We have the defense reform initiative that is headed up by Dr. Hamre, the Deputy Secretary of Defense. That is underway.

So, we are doing our best to live within the caps that you, Mr. Chairman, have talked about. When I went to the Pentagon, I said it is unlikely that we are going to see major increases in defense spending for the foreseeable future in the absence of some significant conflict. I had to at least project that. I have no way of knowing. All of us would like to see more, but it was my judgment, based upon my experience sitting on that side of the table, that we were unlikely to see any significant increases in defense spending. So, I had to try to predict and project what do I have to work with and how do I balance operation and maintenance, readiness, the need for procurement.

The budget we have submitted for 1999 is a well-balanced proposal, and there are some efforts underway on the other side of Capitol Hill on the House side to take significant sums out of the operation and maintenance [O&M] accounts. That will have a major impact on either quality of life, on readiness, and perhaps even on procurement. So, I would hope that you would see the wisdom and look at the proposal that we have before you in terms of the delicacy of the balance.

FUNDING FOR BOSNIA OPERATIONS

A final word perhaps on the supplemental for Bosnia. I have listened to you, Mr. Chairman, and also Senator Domenici in terms of whether you can call this an emergency. Frankly, I had hoped and had argued that we should have a termination of our efforts in Bosnia by the end of June of this year. I had hoped that that would be the case and I worked toward that end, but I also kept an open mind.

I travel frequently to Bosnia. I met with my counterparts throughout NATO, and I also became convinced that if we left at June of this year, that it would take a turn for the worse and we were likely to see a loss of everything we have achieved to date.

So, I think the President made the correct decision to say that it is going to take longer, not to set fixed time lines because we cannot really determine on a monthly or a day-by-day basis how much progress we are going to make. I can say—and I believe that those of you who have been there would say—there has been a dramatic change for the better that has taken place in Bosnia as a result of our being there.

We have tried to shrink down the size of our force. We have come down from 20,000 to 15,000 to 12,000 to 10,000 to 8,500, and we now are going to go down to 6,900. So, we are coming down even as you are seeing a fairly significant change on the ground in terms of economic development, changes in attitudes, the election of more moderate members certainly coming in the Serbian portion and quarter.

So, there are a lot of positive things taking place, and yes, it is still expensive.

But we had no way of knowing in putting our budget together for fiscal year 1999 that we would be there beyond June of this year. That decision was not made until January of this year. So, in that sense, it is emergency. There is a wedge that has been put in the budget of some \$3 billion plus, and what we are asking for is the \$1.9 billion to come out of that wedge for contingencies.

I will agree also that for the next budget that I present to you, we have to find a way to deal with it. It no longer can be called an emergency. The President has made a decision, which we are supporting, that there should be no definite, fixed time line, that we will try to continue to move in the direction we are going, but not setting artificial deadlines to only raise expectations and then dashing them.

So, it is incumbent upon me now to go back for the next budget that I am preparing for next year to say we are going to have to absorb the cost of Bosnia in some fashion. That will raise the issue of whether or not there can be increased funding for defense or whether we are going to have to make some kind of modifications in terms of what we are going to have to give up or efficiencies achieved in order to have the money for it.

But I would ask you that you would continue to look at this as a nonoffset emergency in the sense that there is money that has been set aside for contingencies and this is a contingency that we have to meet. In the event that we do not get the money, it is \$1.9 billion I have got to take out of somewhere. If you look at the way the budget is put together, there is not much room for give. We have been talking about the question of readiness, and we are starting to see signs of some erosion certainly on the edges of things.

And you heard from the Chairman of the Joint Chiefs and the Vice Chair. We have put into place mechanisms now to try to evaluate what are we doing with a number of units that are low density, high demand, as the chairman has described it, those units that you saw over in Southwest Asia, who are concerned about the

amount of deployments. You talked to one individual who had 11 deployments in the past, I think, 5 years. We have got to deal with those issues of reducing the level of operational tempo and PERSTEMPO in order to make sure that we do not contribute to the exodus out of the Air Force by way of specific example.

PREPARED STATEMENT

So, Mr. Chairman, I said I was not going to be long. Let me cease here and yield to your questions, but again, thank you for the support you have given to the Department over the years.
[The statement follows:]

PREPARED STATEMENT OF WILLIAM S. COHEN

Mr. Chairman, members of the Committee, it is a pleasure to be here to discuss President Clinton's fiscal year 1999 Department of Defense (DOD) budget.

Before focusing on next year's budget, I want to thank you for your strong support of the President's fiscal year 1998 emergency nonoffset supplemental appropriations request. The approved funding will enable us to cover unbudgeted DOD costs for the extension of operations in Bosnia beyond this June, for the increased tempo of our military activities in Southwest Asia, and for recovery from natural disasters earlier this year. Your prompt action allows us to avoid the damaging diversion of funds from readiness-related accounts and from other important programs in our budget.

I also thank you for your intensive efforts to achieve a satisfactory resolution on the CBO/OMB dispute on fiscal year 1999 outlays. The outcome of this issue will substantially influence our shared goal of protecting force readiness and other military priorities in next year's budget.

OVERVIEW OF FISCAL YEAR 1999 DEFENSE BUDGET REQUEST

Details submitted to the Congress on our fiscal year 1999 budget depict a plan carefully balanced between meeting current needs and preparing for an uncertain future. Our emphasis on keeping that balance, and how best to pursue it, is the result of last year's comprehensive Quadrennial Defense Review. The fiscal year 1999 budget begins implementation of our plans to keep our military ready to meet current missions, while transforming America's defense posture for the future.

To preserve today's military readiness, the fiscal year 1999 budget provides strong support for training, exercises, maintenance, supplies, and other essentials. In preparing their new budgets, the military services followed my direction that they fully fund their readiness-related accounts. Traditional operational indicators of readiness—e.g., tank miles and flying hours—are projected to remain stable. When adjusted for today's lower troop strengths, fiscal year 1999 O&M funding is well above levels during the 1980's. Still, the intensity of military activities and other pressures require the Department to remain vigilant and ensure that major readiness problems do not develop.

To ensure our long-term battlefield superiority, the budget substantially increases procurement funding for weapons modernization—and meets the Administration's goal of providing \$60 billion for procurement by fiscal year 2001. Additionally, the Department's RDT&E request is carefully targeted to fund the technologies and programs offering the greatest potential payoff for America's future security.

My department's long-term defense plans are achievable only if we streamline and reform our infrastructure and support activities. Much of the needed effort is underway, but we cannot succeed without congressional backing.

FISCAL YEAR 1999 O&M FUNDING AND THE PRESIDENT'S BUDGET AMENDMENT

Your strong support of the President's fiscal year 1999 defense request is crucial to ensuring its continued balance and sufficiency. I especially want to stress the importance of fully funding the Department's Operation and Maintenance (O&M) budget and approving the nonoffset budget amendment for Bosnia as proposed by the President. Together these requests provide the O&M funding that is absolutely essential to sustaining the readiness of our armed forces while protecting America's security interests and enabling our global leadership.

During discussions of our fiscal year 1999 budget request, your committee heard compelling testimony from our nation's military leaders about the readiness con-

sequences of inadequate O&M funding. Our forces are in good shape now, but funding shortfalls would quickly erode readiness by forcing cuts in training, unit and depot-level maintenance, supplies, and other essentials. If fiscal year 1999 O&M funding falls below the President's total request, we would have enormous difficulty sustaining adequate readiness and could only hope to do so through highly undesirable measures such as personnel furloughs and major reductions in programs vital to the quality of life of our military personnel and their families.

Key members of Congress have stated that they consider the President's O&M budget to be the minimum needed to maintain readiness. I agree with that assessment, as does General Shelton and the rest of our military leadership. We therefore urge in the strongest terms the full funding of our O&M appropriations. If the Congress makes major cuts in our O&M budget request, the readiness of our forces will be severely threatened.

Regarding the Bosnia budget amendment, I cannot overstate the importance of your approval. This amendment was required because last year's bipartisan budget agreement did not anticipate an extension of Bosnia operations beyond June 1998 and because plans for that extension were not finalized with our NATO partners until a month after the President's fiscal year 1999 budget submission. The fiscal year 1999 budget amendment, with its request for \$1.9 billion to continue our operations in Bosnia, will enable the U.S. to sustain the considerable progress achieved in that critical region over the past 3 years. The President's budget included an allowance, separate from the DOD budget, for contingencies like Bosnia. That allowance should facilitate your approval of this plan for covering DOD's unbudgeted Bosnia costs.

Without approval of the budget amendment, the Department's only recourse would be to submit a fiscal year 1999 supplemental appropriations request. Such a supplemental would require us to identify and carry out rescissions once the fiscal year 1999 DOD budget becomes law. That course would be terribly disruptive, threaten force readiness, and undermine the morale and well-being of our troops. The far superior option is to build upon recent passage of fiscal year 1998 supplemental and complete congressional funding for extending Bosnia operations by approving the fiscal year 1999 amendment. Otherwise, the Department of Defense and its oversight committees would once again face the damaging burden of dealing with unbudgeted costs for an ongoing operation.

In closing, let me say how important to our nation's armed forces is the strong support of this committee. I look forward to ongoing cooperation as together we work to reinforce America's military strength and global leadership.

Senator STEVENS. Very well. Thank you very much, Mr. Secretary.

Without objection, we will run the clock, 5 minutes on each person, and we can try to share the time with you this morning.

IMPORTANCE OF PACIFIC REGION

Let me start off right by being provincial. Senator Inouye and I are really from the Pacific. My home is closer to Tokyo than it is to Washington, DC. We travel often westward.

We find that less than 10 percent of our forces are deployed in the Pacific and even less a percentage in terms of total costs of operating the military. Today we witness India testing nuclear weapons. We see the seven largest armies in the world exercising in the Pacific, and yet when we go to Europe, we find a demand that we are going to have more and more nations come into NATO. There just seems to be an overwhelming compulsion of our country to spend more and more money on the continent and less and less of our defense dollars in terms of the rest of the world.

What does the QDR really tell us about that deployment strategy? Are we adequately deployed in the Pacific for our defense? Will we be able to maintain our defense and our position as a guarantor of really peace in the Pacific?

I steal one of his lines by saying four out of five of the wide-bodied cargo planes that leave this country go west, not east. Our in-

creased trade that has given us a free market for agriculture is in the Pacific, not in Europe. And I do not understand why we cannot have more emphasis on our security forces in the Pacific.

Secretary COHEN. Well, Mr. Chairman, I would agree with you in terms of the importance of the Pacific. We are not only a European power—I believe that to be the case—we are also a Pacific power.

One of the most, I think, pleasing things that I have seen is the reputation that we enjoy throughout the Pacific. Last year, for example, we negotiated with Japan for updating the defense guidelines, something that is still controversial as far as its impact within domestic politics in Japan, but also in terms of the Chinese being concerned about what does it mean for them. But that is a very solid bilateral relationship we have with Japan. We have strengthened that. So, we have a really enduring relationship with Japan and the modernization of those guidelines is something that I think is in our mutual interest.

When I was in Singapore a few years ago, I heard from some of the more senior leaders of Singapore who thought that the United States was in a state of decline and that we had lost our bearings, no longer could deal with our budgetary difficulties, and frankly were a declining power.

That is no longer the perception in that part of the world. They see that we have, in fact, gotten control over our spending habits, that we are coming into balance, that we are still a super power, and that we have been invited by the defense minister of Singapore. To give you an example, they are building a pier that will be completed next year, 1999, and they invited our aircraft carriers and any other ships to come and visit as often as possible. So, that is another signal of our position in the Pacific.

BURDENSARING WITH ALLIES

Senator STEVENS. Can I interrupt you? When you look at the Pacific and look at Europe, our host nations pay substantially for our presence in Korea and Japan. When we go to Europe, we pay the major portion of the total cost of defending Europe. There is virtually no host nation support over there any longer, and yet we are being asked to increase our presence, increase our role in Europe. Bosnia is a good example. NATO would not have gone in there without us.

Secretary COHEN. Which is correct.

Senator STEVENS. Yes; which means we are in charge of the defense of Europe, but we are doing so I believe at our peril in terms of representing our interests truly in the Pacific. We are stretched so thin in the Pacific. I do not believe we have a credible, real defense force there. We have a presence but we do not have a credible force like we do in Europe.

Secretary COHEN. Well, there are other types of restrictions I might point out in the Pacific as well that many of the countries with which we have good relations and strong relations also do not wish to have a large presence on the part of the United States which means we have a naval presence much more than a land-based presence. So, that also raises the issue of how much we are going to have in the way of a naval presence in that region.

I think we have a sufficient presence to maintain a strong influence over events in that part of the world. I believe that our relationship with Japan, with Korea, with Singapore, with Malaysia, with Thailand—all of these countries have been very——

Senator STEVENS. Go ahead. I have got 1 more minute.

Secretary COHEN [continuing]. Beneficial, and also I might add with China.

THEATER HIGH ALTITUDE AREA DEFENSE [THAAD] MISSILE STATUS

Senator STEVENS. What happened to THAAD? Before I lose you, what happened? We have the fifth failure now. What happened?

Secretary COHEN. Mr. Chairman, I am no expert in the field of technology that I can give you an informed answer to that.

I would point out that looking at this morning's papers, I think it was USA Today. I am not sure which paper it was, but it showed the failure of THAAD, but right next to it it had Ford recalling I do not know how many hundreds of thousands of its——

Senator HOLLINGS. 1.7 million.

Secretary COHEN [continuing]. 1.7 million of its pickup trucks. The irony sort of struck me. Here we are talking about a major manufacturer having to recall a pickup truck because of the danger of the wheels falling off.

Now, we are now talking about something different in terms of a—and I am not being critical of Ford in this regard, but to show you that technology can be very complicated as far as designing a missile system to intercept another missile system, the combination of the two traveling at a combined speed of 8,000 miles a minute. That is something that is an extraordinary effort on our part.

So, we are bound to have failures. Each of the failures has been for a different reason. Hopefully, if we continue to conduct the testing, we will overcome the technological defects that we have experienced. But I am not in a position to tell you what exactly went wrong. I have had it described to me, but I do not have the expertise to give you a full explanation.

Senator STEVENS. I thought maybe you had the answer.

Thank you, my friend. Senator Inouye.

Senator INOUE. Thank you.

Mr. Secretary, if I may follow up my chairman's line of questioning. In Alaska just a few days ago, the commander in chief of the Pacific announced that he is developing a theater contingency response brigade in Alaska. It will be a fine organization, ready to move and ready to carry out the will of our Nation. But we have no airlift stationed in Alaska.

We have the 25th Division minus one brigade in Hawaii ready to move, well trained, but no airlift stationed in Hawaii.

We have a marine expeditionary force in Kaneohe. They are ready to go, but no amphibious ships in Hawaii. They are all on the west coast.

I would hope that you and your staff would look into this because if you want fast response, the troops are ready, forward deployed, but we do not have the vehicles to provide lift. So, that is my only concern.

Secretary COHEN. I will follow Senator Inouye's advice.

Senator INOUE. Very well.

Senator STEVENS. Senator Hollings.

Senator HOLLINGS. I do not know where these fellows find all the enemy out in the Pacific. [Laughter.]

I hope you deploy in accordance with the threat.

Senator STEVENS. What is the threat in Europe to the United States today?

Senator HOLLINGS. Bosnia and that tinderbox. I will go along with Senator Hutchison and withdraw our troops there if you want to.

Senator HUTCHISON. Thank you. I will sign you up.

Senator HOLLINGS. Yes. [Laughter.]

That would be a good question. Before I get to that though, you said that we have great respect for today's military. However, it seems to me that within DOD there seems to be a seed of disrespect toward our military relating, especially relating, to health care.

I will never forget serving on the Grace Commission. Commission members said that commissaries, post exchanges, and CHAMPUS health care were all waste, fraud, and abuse. The Commission members had absolutely no understanding of the commitments that had been made to military men and women when they enlisted.

Now, I happen to have been for the draft and still am, but we must support and pay for the All-Volunteer Army. That is the policy. That is why I have introduced Senate bill 2020, to keep the promises that have been made to those who served. This legislation, entitled the Military Health Care Equity Act, would require that DOD provide all military retirees with health care comparable to the care provided by the Federal employees health benefit plan, or failing that to make FEHBP available. The bill would also require TRICARE to be improved to the FEHBP level. I have also joined the chairman of the Veterans Committee in sponsoring a bill to allow Medicare to reimburse veteran's hospitals when they treat a veteran.

Now we force retirees who turn 65 out of TRICARE and into Medicare. That is not the commitment we made. My best estimate is that my bill, Senate bill 2020 will cost about \$2 billion to honor the commitment that the military has made to provide quality, lifetime health care to military retirees.

Looking at the morning paper, other members are also concerned. You can take the \$2 billion out of the intelligence budget. They always are surprised. That crowd needs to simmer back down, and I say that advisedly. I served on the Hoover Commission investigating them back in the 1950's. They have too much bureaucracy. They should read the New York Times and find out what is going on. [Laughter.]

Otherwise, why not find a couple of billion there or elsewhere, not out of your budget, but give us a plan to really comply with the promises that have been made, and not a Philadelphia lawyer who says now that he is really wanting a commitment. Do you not believe we have made a commitment? You and I grew up on this side and not in the Pentagon, but that is what I have always understood. I believe that the military serving in and about us in

South Carolina, and elsewhere, were promised health care for themselves and their families.

TRICARE

Secretary COHEN. Senator Hollings, you are correct. TRICARE I think is in the process of at least maturing and being refined in a way that will be beneficial ultimately. There have been a number of problems with it. It has not been the quality of the medical people. We have some of the finest physicians serving in our military. The problem has been access and also in terms of payment.

As part of this DRI I talked about, defense reform initiative, I created something called the TRICARE management activity, and we are in the process of finalizing now getting a retired admiral who is also a physician to be the executive director of this agency to deal with those two issues, and that is access so you do not have the long lines that they have been experiencing and also the lack of payment—being made quickly.

Senator HOLLINGS. Mr. Secretary, you should hire a recruiting sergeant to be the executive director. Recruiting sergeants know what they promised the recruits in order to convince them to join the services. A recruiting sergeant could best explain how TRICARE should be organized so as to care for beneficiaries.

Secretary COHEN. Last year, you may recall, we were about, as I remember, \$500 million short on the funding of the health care programs, and we rectified that. We are still going to have to deal with the issue that you have raised here. It may take some additional funding.

But the principal problems have been the lack of access and the lack of prompt payment, and those are the two we are focusing on right now.

Senator HOLLINGS. I wish you would look at our bill and give your comments when you have time.

With the limited time, going right to Bosnia, I visited there with our majority leader. We got around the table with the three heads, Moslem, Croat, and Serb presidents, and everything was going hunky-dorey. It sounded just like one of those Vietnam briefings that we would get tell us the light could be seen at the end of the tunnel, and whoopee. Then, Senator Hagel asked, what about the war criminals? Well, the Serb president straightened up. He said, now, Mr. Senator, no one is a criminal until they are tried and proved guilty of a crime. He said, the offenses you charge against our leader, you can charge against the other leader, pointing to the Moslem leader.

I can tell you right now I kept asking everybody, not just at Tuzla where we stayed, but at Sarajevo and at Tuzla and at Brcko, the GI and the general, is this thing working? They said, sure, they are fine, I mean, as long as you are going to pave their roads and reinstitute lines of communication, repair the airports, and clean up the hospitals, and everything else. But as soon as we leave, they are going back to war again.

They are bound to get along as long as we are pouring in the money and cleaning the place up. But unless and until the Europeans are ready to take over, what is the cutoff date? Asked an-

other way, from your experience, when will the job be accomplished?

THE WAY AHEAD IN BOSNIA

Secretary COHEN. Senator Hollings, I think you would agree that if you looked at Bosnia 3 years ago or 4 years ago and you saw it today, you would see a dramatic change that our presence has made. I think that we have to simply continue the process. As I mentioned before, we are coming down in size. I would like to come down further. I also have to take into account what our European command, SACEUR, General Clark, has to say in terms of force protection to make sure that as we are coming down, we do not see an enlarged mission. I know that some of you were concerned about that, that as we shrink our forces, we do not expand the mission. So, it is balancing the mission and the manpower. But we are coming down.

One thing that I have urged upon my European counterparts is to create a specialized unit, something that would serve as a buffer between the S4 forces and the local police who have yet to be trained to professional standards. So, we are making a lot of progress in that regard. We have got a number of European countries who have committed not only money to the international police task force [IPTF], but they have also contributed manpower to this specialized unit.

So, I cannot give you a definite answer. All I can say is I think we are going in the right direction and we are coming down. Ultimately, all of us will have to decide. It is not just this administration or our next administration. It is Members of Congress who have an equal role in deciding whether or not it is in our overall interest to be there. I think it is as of this time.

Senator HOLLINGS. Thank you, Mr. Chairman.

Senator STEVENS. Thank you, Senator.

Senator Harkin.

Senator HARKIN. Thank you, Mr. Chairman.

Again, Mr. Secretary, my compliments to you on your great leadership of the Department of Defense.

I just publicly again want to thank you for being the first Secretary of Defense to visit the Rock Island Arsenal. I have been hearing wonderful things from the people out there who are very enthused by your visit, and I am thankful that you took the time.

I wanted to ask you to assess for us what has happened in South Asia in the last couple of days. I do not know how much you want to talk about that.

But under the existing law, the Nuclear Proliferation Prevention Act of 1994, certain sanctions are automatic. It says that under the sanctions, the U.S. Government shall terminate sales to that country—that country being a country that would explode a nuclear bomb—of any defense articles, defense services, or design and construction services, and licenses for the export to that country of any item on the U.S. munitions list, and the U.S. Government shall terminate all foreign military financing for that country under.

So, a two-part question. One, can you assess for us in military terms what this might mean, what India has done in exploding five nuclear bombs now in the last 2 days, what this may mean for the

entire region of South Asia, and second, what your Department is doing or will be doing to implement this section of the law?

DEVELOPMENT AND TESTING OF NUCLEAR WEAPONS

Secretary COHEN. Well, first of all, I was looking for a clock, but apparently it is behind me, but I believe around 10 o'clock this morning, President Clinton did have a press conference in Germany in Potsdam. He has indicated that the nuclear testing is unjustified, clearly creates dangerous instability in South Asia. He is imposing economic sanctions against India as an unambiguous response that would make clear our categorical position concerning the testing. So, I have not seen the details in terms of how broad those sanctions are going to be, but I know that he is deeply concerned about it and has responded quickly to the invoking of the sanctions under the law.

I think that it is fair to say—I am not sure it is the right metaphor or the right wording to be used, but there will be a chain reaction. That is the potential of this, a chain reaction of other countries following suit. It is one of the reasons why we have worked, when I was a Member of the Senate and the House, so hard to try to keep the nuclear genie as far into the bottle as possible, as far as other nations participating in developing nuclear weapons. But as everybody knows, there will be pressure on Pakistan we are hoping, and we are urging Pakistan to exercise restraint and not to follow suit.

But there will be other countries who will see this as an open invitation to try to acquire the technology. We know that there are a number of countries trying to acquire it. I filed a report last fall showing that there are roughly 25 countries now who either have possession or are in the process of acquiring nuclear, chemical, or biological weapons. So, we have a real proliferation problem that is taking place globally.

This is only going to contribute to that. I think it is going to cause other countries to find a rationale, much as India has found its rationale for showing that it has a nuclear power. So, I think it is going to set off that kind of potentiality at least. Hopefully, we can encourage and be successful and encourage the Pakistanis not to follow suit, that we can continue to urge the Russians not to transfer nuclear technology to the Iranians, by way of example.

I was in China earlier this year and I met with all of the top leadership of China. They made a pledge that they would stop selling and transferring nuclear technology to Iran. Hopefully, we can continue to maintain these kinds of bilateral relationships with major countries such as China and Russia to discourage them from having this technology fall into the hands of other countries. But it is a potential that we will all have to look at.

Senator HARKIN. If I can just use your analogy a little bit further. Chain reactions can be stopped technologically speaking.

Secretary COHEN. Hopefully, politically speaking.

Senator HARKIN. And, hopefully, politically speaking too, which I think argues that the toughest possible sanctions of the law must come down on India to show other countries that we mean business on this. Hopefully, we will work with our allies to do the same.

Secretary COHEN. I have been told—at least I learned on the news this morning—that Japan has agreed to impose sanctions, that France has indicated it would not. Beyond that, I have not heard what the international community's reaction is.

Senator HARKIN. Typical of France, anyway. [Laughter.]

COMPREHENSIVE TEST BAN TREATY

That is my statement. You do not need to nod or say anything else. Typical of France.

The one way again to try to stop this chain reaction, it seems to me, is to push ahead on the Comprehensive Test Ban Treaty [CTBT] signed by 149 nations. We know that in August 1996 India opted out. Now we begin to understand why. But again, looking ahead, a Comprehensive Test Ban Treaty I believe is one way of putting in those graphite rods and begin to stop this kind of a chain reaction.

What I read in the paper is that our majority leader said that the test ban treaty probably has been set aside as a result of India's action. I hope that is not the case. I would hope that we would continue to push as hard as possible to get all countries to sign on the CTBT because that would be the way to stop the nuclear chain reaction.

Any comments you might have on that I would appreciate it.

Secretary COHEN. Senator Harkin, I agree with you. I think the fact that India has taken this action should not ease our concern, but rather accelerate our effort and we ought to be more determined than ever. I am hoping that we will continue to press other countries and get the ratification of the Comprehensive Test Ban Treaty and especially take it up in the Senate.

Senator HARKIN. I appreciate that.

Thank you, Mr. Chairman.

Senator INOUE. Senator Gregg.

Senator GREGG. Thank you.

INDIAN NUCLEAR CAPABILITIES AND SANCTIONS

Mr. Secretary, does India have the capacity to deliver a nuclear weapon? Do they have aircraft or missiles which could deliver a nuclear weapon?

Secretary COHEN. Senator Gregg, I would not want to comment in terms of what India's capacities are in terms of delivering nuclear weapons at this point. I think it is something that we certainly ought to look at but not at this time.

Senator GREGG. Is the administration going to send up any legislation relative to extending sanctions against India beyond those which might be available already in the law such as sanctions which we can pursue under the IMF, but will there be language sent up that might track, for example, the Pressler language which applies to Pakistan?

Secretary COHEN. The answer is I do not know. I have not had a chance to talk to other members of the President's Cabinet or with the President himself. He is traveling and I have not had occasion to talk with him. But certainly we will look at that and I will get back to you as soon as possible.

Senator GREGG. Do you think it is appropriate that we put limitations such as the Pressler language on India? After all, if we are going to say to Pakistan, which has not exploded a nuclear device, that we are not going to sell you F-16's which you paid for, should we not apply the same sort of standard at the minimum to a country which has so flagrantly violated the norm on nuclear weapons?

Secretary COHEN. I am sure the administration is going to look with the most severe and critical eye at this particular testing. I cannot say at this point what will be recommended, but I believe that the President is going to recommend strong reaction to it. I cannot tell you at this time what exactly that would entail.

But with respect to Pakistan, let me say that I felt, as a Member of the Senate when I served here, that Pakistan was not being treated in an evenhanded fashion in terms of the sale of the F-16 and how we dealt with that issue, which is one reason I supported the Brown amendment to the Pressler amendment.

Senator GREGG. What other options do we have as a Nation to address this type of action by a nation like India? I mean, if we use economic sanctions against a nation like India which is inherently destitute, we would probably end up taking it out on their people more than on their government which is responsible for this. What are our options?

Secretary COHEN. I think sanctions really can have an impact if they are multinational or multilateral in nature. If it is a question only of the United States taking action, we have found that usually it does not produce positive results because other countries are rushing to undercut the impact that we would have.

But I do believe that a broad imposition of economic sanctions can have an impact upon the leadership, political leadership, of a country, and I believe that to be the case with respect to India as well. If it is just the United States or one or two other countries, then I think the impact will be marginal and the political result will be inconsequential.

Senator GREGG. Do we have any information which is available to the public as to whether or not India's representation that this was the last of a series is an accurate representation or is that—

Secretary COHEN. I have no information on that subject whether it is the first or the last or whether there will be other attempts to either lead or mislead the United States. I am not in a position to comment.

Senator GREGG. Thank you.

Senator INOUE. Senator Bumpers.

Senator BUMPERS. Thank you, Mr. Chairman.

Mr. Secretary, first of all, let me thank you and the administration for your very strong stand on the national missile defense deployment issue. The three-plus-three plan is an eminently sensible one, and I just want to express my thanks to you. God knows you do not get very much thanks these days for much of anything else.

Let me just say that I am very sympathetic with your problems and particularly when you have 535 micromanagers to tell you what you ought to be doing. So, as 1 of the 535—

Secretary COHEN. Let me tell you. [Laughter.]

Senator BUMPERS [continuing]. I will now proceed to do just that.

First of all, we make decisions around here based on the most credible intelligence we can get. You served on the Intelligence Committee for a long time and I was speaking downtown last night, and I said apparently the \$28 billion to \$30 billion we spend on intelligence in this country did not help out in the case of India exploding underground nuclear weapons. So, sometimes our intelligence can be flawed and cause a great deal of difficulty. Apparently that was totally missed, according to the paper this morning.

Nevertheless, we do have to depend on the intelligence community to determine what the threat is and we have to build our defense forces based on the most credible evidence we can get as to what the threat is. I happen to disagree with the chairman and the ranking member on the Pacific. I do not see any threats from the Pacific. That is not to say they are not there or that they will not be there.

But my basic question is—about the only thing I have to ask you—when you consider the technological explosion in this world in the past several years and we try to translate that into our weapons systems, it seems to me that we do not need to replace existing weapons one for one. Take fighter planes, one of my favorite subjects. You know I am crazy about the F-22.

Secretary COHEN. It used to be battleships I remember. [Laughter.]

Senator BUMPERS. Battleships and a host of others.

But in any event, here we are getting ready to spend \$300 billion on fighter planes. The F-22 is one of them. Why we would put this much money into one fighter plane with no obvious threat. I mean, right now the F-22 would be valueless to us unless we had the bases, for example, in the Middle East to deploy those fighter planes.

It seems to me that we ought to buy fewer than the 339 we plan.

I know that one of your biggest problems and every defense chief before you is readiness. I never heard a Secretary of Defense come here and testify that he was not more worried about readiness than anything else. When we continue to spend—for example, procurement is going to go up about 30 percent over the next 5 years; while personnel will go up only 6 percent; and operations and maintenance only about 7 percent. It seems to me like that is an inordinate amount for procurement.

So, I have to ask why are we putting about 27 ships in mothballs that have, most of them, 15 years' life left in them? The CGN-41 *Arkansas*, \$300 million when we launched it in 1978 with a firm solemn promise that it had a 35-year life expectancy. Today that same ship costs \$1 billion, but we were assured at that time that nobody would be able to match it and in my opinion nobody can match it. The only thing I can figure is that this is keeping the shipyards busy.

Back to the point—and it is a philosophical one, one you have to deal with all the time—it troubles me that we are buying—I favor the E/F, but it troubles me that we are buying as many E/F's as we are.

The F-16. Obviously, we just found out in the last couple of days the United Arab emirates thinks the F-16 is superior to the Eurofighter or the French Rafele.

So, you understand the gist of my question. I would just like to hear your general comments on that.

AIRCRAFT MODERNIZATION

Secretary COHEN. With respect to the aircraft, Senator Bumpers, you may recall back in 1984, I think it was, along with Senator Nunn at that time I introduced a concept called the guaranteed build-down, and I deliberately used something that sounded like a complete oxymoron by combining the two words. It was I believe Alton Frye who was with us at the time and sort of our guru about how that could work. But using the build-down concept, we said we were going to modernize our systems and make them more survivable by taking two of the older ones out for every new one we put in.

In a way, that concept is inherent as far as the modernization of our tactical air is concerned. We have six different types of tactical air right now. These three new systems, in fact, will replace six that we currently have. They will be more capable and they will be fewer in number. I cut one-half, as a matter of fact, the number of F-18E/F's from the original projection. I reduced that number almost by one-half.

Senator BUMPERS. What is that number now, Mr. Secretary?

Secretary COHEN. It has come from 1,000 down to, as I recall, 548, and with an opportunity to go up as high as 750 roughly in the event that the joint strike fighter does not come online at a cost that we can afford. So, I have tried to use some balance here. I did not want us to find ourselves in a situation where you had one plane that all the services were buying into that suddenly had started to go off the charts as far as costs were concerned and a lack of performance. So, it gave me an ability to say I am going to use the E/F model of the F-18 to give me a hedge against the joint strike fighter in the event that it does not really pan out.

With respect to the F-22, that is going to replace some aging aircraft, F-15's. It is going to give us a multirole stealth aircraft that I think will keep us superior in the years to come. One of the reasons that I supported the F-22 is that much of that stealth technology that is being developed for the joint strike fighter is going to be evolved from the F-22. So, there is a real synergy involved in those three programs.

I know that it looks to you and to others perhaps as if we do not need that, but there is a rationale behind it in terms of what each plane can do and will do with the balance it gives us for restraining costs in the future and also keeping us well ahead of any other competitor. There are other countries out there who are seeking to develop better aircraft than we have. So far, we are still ahead and we want to keep it that way.

Senator BUMPERS. Thank you, Mr. Chairman.

Senator STEVENS. Senator Domenici.

Senator DOMENICI. Thank you very much, Mr. Chairman.

Thank you very much, Mr. Secretary, for your answers today.

I am going to talk about three subjects very quickly. Mr. Secretary, I believe that from the economic standpoint that the status of the American economy has a bearing on the quality of life and

the retention policies of this country. Now, let me explain what I mean.

If, in fact, we are going to have an economy that has unemployment at below 5 percent with a very significant increase in the pay rates across this land for working men and women, it would appear to me that the U.S. military is going to have a more difficult time both recruiting and retaining. Now, there are a lot of other reasons, but it is pretty clear to me that in the area of Kuwait and Saudi Arabia, especially as to the Air Force—and I apologize for not knowing about the Navy or the Army—but it seemed to me that the economic situation in America is a tremendous draw on technically qualified men and women.

That leads me to think that we cannot wish that away because, on the one hand, we wish the economic situation to continue indefinitely, and that leads me to ask of you that you seriously look at the entire commitment to the All-Volunteer Army as to their personal lifestyles. I believe quality of life cannot just be a phrase anymore, that you have to look at every aspect of our commitment, when we passed an all-volunteer military. Essentially it was that we will make sure you get paid the equivalent of the marketplace. We said that. That was the debate on the floor. That is how we passed it. If we do not continue to upgrade that, then it would seem to me that the premise upon which we build the All-Volunteer Army is missing. We had men and women tell us they were not going to stay in for a lot of reasons, excessive deployments, away from their families, but also in each case they were saying there are great jobs for us out there in anything to do with airplanes.

So, I would urge, Mr. Secretary, that you be not the least bit abashed about reviewing what the appropriate commitment to a way of life, quality of life, pay, pensions, and certainly health care. If we cannot live up to our commitments, we are going to risk losing many, many recruits who are not going to join today because they see another opportunity and we are going to lose people in too short a period of time to make the All-Volunteer Army work.

Now, I approach it a little differently than some, but I believe economics is a very important thing. We heard these men and women over there tell us that we cut their pensions. Well, they are aware, even though it was a number of years ago—and it was.

Secretary COHEN. 1986.

Senator DOMENICI. We ought to take another look at these things. Some of us never understood that it really impacts on them, especially I say again in an economic environment where jobs are plentiful and pay is high. So, that is my first observation, and I hope you will give us your views at some point. I want to move on to a second one and make sure we are clear.

Mr. Secretary, when you speak of having a reserve fund in your budget, the truth of the matter is it is a reserve fund called in advance an emergency. So, it is not in the budget. So, it seems to me that if you are now beginning to look at budgets where you are going to have to have a contingency fund—and I would doubt that you will have very many budgets without it—it would seem to me that we ought to start talking about more and more of that being in the regular budget because to manage it otherwise is very tough

on readiness, because you are robbing from one for another while you wait around for an emergency allocation of money.

I offer to you my full support in an effort to make the budget more realistic in that regard. We now have very big surpluses. Everybody and his uncle are figuring out ways to spend it. I have not heard anybody say, well, what about defense. I am saying it right now. They want tax cuts. They want all kinds of new programs. If we have got a big surplus and we do not have to be worried so much, I am for increasing defense. I do not like to see what you have to do when you have an emergency. It is not fair to any of you, including the generals. Very tough on them.

Now, my third question—would you like to comment on those two, please, just for a moment?

Secretary COHEN. Why do you not ask your third one and I will comment on all three.

Senator DOMENICI. All right. My third one is much more precise. In the DOD authorization bill, Mr. Secretary, which is on the floor, it is interesting that when it comes to missile defense—we have a bill on the floor. We are going to vote on cloture on the missile defense bill. In the armed services bill, the airborne laser program is cut \$100 million. Now, that airborne laser program, from what I understand—and I would like you to corroborate this—is totally supported as one of the most significant programs we have. It clearly might work. It is ahead of everything else. I wonder whether you would agree that we ought to fund it, as you requested it, or should we take away funding for a platform that they want in order to take the second phase of this on?

Senator STEVENS. Knowing that we have a vote at 10:30, Mr. Secretary, perhaps—

Senator DOMENICI. My time is up.

Secretary COHEN. I will be very brief, Mr. Chairman.

I meant no disrespect by asking you to go to your third question. I was looking at the timer, and we were already on the yellow light. I figured if I took the time to answer your first two questions, you would never get to ask the third one.

Senator DOMENICI. Thank you very much.

Secretary COHEN. So, in any event, let me try to move very quickly.

QUALITY OF LIFE AND PENSIONS

I agree with you with respect to quality of life.

The pension aspect, you are quite correct. We changed that back in 1986. We made a change in order to try to provide an inducement for people to stay longer, not to leave, so they would stay 30 years and not leave at the end of 20 years.

Now it is having just the opposite effect. Right now people who have between 10 and 11 years and are looking at the future—and they know all about pension plans. I think at our respective ages at that time we were not too concerned about pensions. Now they are looking very closely, what does this mean as far as their future is concerned. And they are looking and they are going to see a rather significant reduction from those who signed up in 1980, by way of example, almost a 25-percent reduction.

So, we have to address the issue on pensions and health care. I will not take more time right now, but I will tell you that is an issue that we will address in the near future.

MISSILE DEFENSE

With respect to missile defense, we submitted a budget for the airborne laser program because we think that is the right way to go. So, money was taken out to put into a different platform. It is going to be up to this committee to make a judgment. We support the airborne laser program.

Senator DOMENICI. Thank you very much.

Senator STEVENS. Senator Hutchison.

Thank you, Senator.

Senator HUTCHISON. I would just like to follow up on what Senator Domenici was asking and the chairman of the Intelligence Committee will follow shortly. I am sure he is going to address the issues of intelligence on the Indian missile testing.

But I am very concerned about what Senator Domenici has just mentioned in light of not only India actually testing, which we know, but North Korea also today threatening to renounce its agreement and to refuel its nuclear reactors. We know that China has now been sold some of our technology. We have fought a war over Iraq having ballistic missiles with at least chemical and biological weapons and perhaps nuclear. Iran is gearing up.

Now, I am just saying how can we say that all we need to do is wait to see if someone is successful and then within 3 years we will be able to deploy our defenses? It just seems to me that we ought to be putting this ahead in the priority list, especially in light of what has happened just in the last 5 days.

NATIONAL MISSILE DEFENSE SYSTEM AND THAAD

Secretary COHEN. We are spending billions of dollars for research and development for a national missile defense system. I helped to broker that compromise that was reached on the Three-Plus-Three Program, but a judgment we made in just another 1½ years in terms of whether or not it is time for the United States to move forward on a National Missile Defense Program. Intelligence will play an important factor. We could either dismiss it saying it is not reliable, but I tend to think that we only focus on the intelligence community when there is a failure, not when there are many successes. But in this particular case, you will make a judgment, we will make a judgment in terms of another 1½ years, do we go forward and deploy a system, assuming we have developed the technology that would allow us to do that.

The THAAD Program raises an issue of the difficulties, the technological complexity involved in one missile hitting another missile traveling at those speeds. But we are devoting billions of dollars to the research and development so that we will be in a position to deploy a system should the intelligence warrant it or should the determination be made by political leaders at that time. Whether we want the intelligence to be a factor in our minds or not, that is always something that policymakers can make that determination.

But I think that we are proceeding prudently. Some would argue, as a matter of fact, we had one team that said we are not proceed-

ing prudently, that we are moving too fast. So, we are trying to take into account congressional concerns about this, as well as our own. We are moving as fast as we can, and for some it is too fast and for others not fast enough.

Senator HUTCHISON. What would make you relook at that decision of waiting for 1½ years to make a final decision? Is there anything that would make you put that on a higher priority list?

DECIDING ON MISSILE DEFENSE DEPLOYMENT

Secretary COHEN. What I am saying is it is on a very high priority list right now. We are devoting billions of dollars to this research. This is a technically challenging task to build such a system, but we are talking about 18 months and we will be in a position to make a determination whether or not we have the technology to go forward and at that point whether we should deploy it. It will take into account other arguments. Senator Dorgan just went to the floor to talk about the national missile defense system, but you do have other factors involved.

It may be that there will be a determination made at that time that the ABM Treaty is no longer relevant, but that is not a decision that has been made to date. We do not know, for example, whether we have the technology that you could deploy a system that will be ABM compatible by the year 2003 or sooner. Do we have such technology and is that not a consideration? If it is not a consideration, then you may decide on a different type of technology that will be required. So, those are factors I think we all have to address.

But right now we are proceeding with our theater missile defense systems, developing it, failing in the THAAD Program most recently, and also with the national missile defense system. We now have a systems integrator who has been selected who will be integrating all the various tests that have been done to try to put together a system that would be deployable in the event the decision is made to deploy.

Senator STEVENS. Senator Dorgan.

Senator DORGAN. Thank you, Mr. Chairman.

ADDRESSING MULTIPLE THREATS TO U.S. SECURITY

Let me ask two questions. I share the Senator from New Mexico's interest in the airborne laser program, and I just spoke on the floor about the National Missile Defense Program. There are a whole range of missile threats and different kinds of threats. If the Congress were to force the deployment as soon as technologically possible of a National Missile Defense Program, notwithstanding cost and other factors, could that in the intermediate or long term hinder funding for such things as the airborne laser [ABL]?

Secretary COHEN. I do not disagree. I think we have got a balanced program right now and I think we should proceed with it. It is one of the reasons why we have tried to weigh all of the threats, all of the challenges we face. I think national missile defense is an important program. I also tried to point out that the spread of biological and chemical weapons also presents a threat to this country and to the world at large which we are, at this point, not prepared to cope with adequately.

I think that you will see more and more countries developing biologicals. It is much easier, much cheaper, and equally as dangerous. I took the time to point out during a recent address that if you took 100 kilograms of anthrax in the right weather conditions and proper dispersal, it would have something like two to six times the destructive power of a 1 megaton nuclear bomb.

So, there are a lot of threats out there. We are trying to have a balanced program.

Senator DORGAN. And that is the point of my question, that if you respond to one threat exclusively, it may well be at the expense of responding to other threats.

Secretary COHEN. We have a whole panoply of threats we have to contend with in the future and we have to try to weigh what is the most likely, not only what is the most likely, but what is the most devastating as well. You might say that a nuclear exchange is the least likely, but, of course, it could be the most devastating. By the same token, we are looking at the spread of biological technology and that can prove equally destructive. So, we have a number of threats we have to contend with.

Senator DORGAN. One might make the point that a less likely threat would be someone developing or getting a hold of an ICBM tipped with a nuclear device. Cruise missiles are probably much more readily available and easy to work with.

BASE CLOSURE AND REALIGNMENT

Let me also ask you about base closings. You, Mr. Secretary, suggested some while ago that if not given the authority, you might consider allowing some bases just to wither. I think you used the term "wither," which might or might not be a term of art here. What exactly do you mean by that, and are you serious about that?

Secretary COHEN. I do not think I suggested that as a viable option. I said that that could take place. It would be the least desirable of any option for a Secretary to exercise. It is possible to say that those facilities which no longer are deemed to be essential to carry out a mission would simply not receive the kind of attention that they otherwise might receive. That would not be fair. It would not be fair to the people who work there, to the men and women in uniform, and the civilian counterparts, and it would not be fair to the community in my opinion. That is the least fair of all the options because the community does not benefit from such a situation.

BRAC, whatever its deficiencies, is a much fairer process. I can recall if you leave it up to the Pentagon and say, OK, let us just pick the bases that should be closed, the first thing that would happen, Members would say, wait a minute, it is political, let us not let that happen. So, you say, now we have BRAC. You say, well, that is political. We cannot let that happen. So, if you reduce all of the options, you are left with an option way down here that says, well, we just cannot afford to keep that going. We will let it not be upgraded. So, I think it is the least desirable.

Senator DORGAN. I understand that, and I understand the issue of overcapacity, although there are some 40 to 50 bases that have been ordered closed but are not yet through the closing process. I am one of those who believe that once you start a BRAC round,

there is a bull's eye on the front gate of every military installation and you begin to stunt the economic growth of every community until the round is complete.

Could there not be a more focused approach to this? If you have overcapacity, for example, in certain areas, could you not do some kind of closure approach that does not put every community at risk or does not put every base in question? That is one of the reasons you are having problems getting authority from the Congress for another two rounds.

The second questions is, could you not do it in one additional round at some point with a more focused set of objectives?

Secretary COHEN. Let me respond very quickly.

First of all, we found out that within 2 years of a closure of a base, about 75 percent of the employment has been regenerated. So, I can point to a number of great success stories where bases have been closed but they have far more employment. Most recently, at Pease Air Force Base, they have three times the employment they had when it was a military facility, now that it is in private hands.

But, second, with respect to a more focused approach, if the Congress were to decide that you were to leave it up to me as Secretary of Defense to take a more focused approach and pick and choose those facilities that should be open and closed, I could certainly accept that, but I think the minute you were to say that, there would be other Members who would say, wait a minute. That is too political. We are not going to give one person the opportunity to shut down our facilities and make that kind of recommendation.

So, it is one of those where I think the BRAC process is the fairest of all, where you have an independent panel that receives the recommendations of the Pentagon, and then they make a recommendation. I think that is the fairest. It is not certainly fool-proof in terms of its equity, but I think it is the fairest of all the choices.

Senator DORGAN. Thank you, Mr. Secretary.

Senator STEVENS. Senator Shelby.

Senator SHELBY. Mr. Chairman, I have several questions for the record regarding procurement spending and the cost of operations in Bosnia that I would like to ask the Secretary for the record and that it be part of, if that would be permitted.

NUCLEAR TESTING BY INDIA

Having said that, I would like to get into the problem on the subcontinent of Asia. Mr. Secretary, you served a long time as a member of the Armed Services Committee. You spent a lot of time on the Intelligence Committee. I have worked with you on a lot of issues. Were you surprised or shocked at what happened in India and us not knowing about it, our intelligence?

Secretary COHEN. I think my characterization would be the same as any of yours. It did come as a surprise. There were a number of statements apparently that were quite misleading on the part of political leaders. There was, from a technical point of view—and again, I have only been looking at this very artificially so far—or superficially I should say. I have not had any briefings on it as of yet, but it appears that we have the technology to see that some-

thing was taking place, but the analysis was not there. But there is going to be an internal investigation by the CIA.

Senator SHELBY. Perhaps the analysis was not done.

Secretary COHEN. Analysis not done.

You are going to be conducting hearings——

Senator SHELBY. Tomorrow.

Secretary COHEN [continuing]. Into the subject matter, and you are going to be in a far better position than I am at this point to comment.

Senator SHELBY. I believe it was your term—and I thought it was very appropriate—that we have now a real proliferation problem.

Secretary COHEN. We do.

Senator SHELBY. We knew it was looming. You mentioned that there were 25 nations in the world—I believe it was 25 that you said—that have either nuclear, biological, or chemical capability.

Secretary COHEN. Or seeking to acquire it.

Senator SHELBY. Or seeking. Is this going to set off the arms race? I believe the phrase was a “chain reaction.” There has got to be a response to this either by China, Pakistan, or someone else, unless we can hold the line somewhere. I do not know how we are going to get the genie back in the bottle. I would like to see us get it in the bottle, and I know you would. Would you want to comment on that?

Secretary COHEN. The danger is that there will be this proliferation and reaction. I used the phrase “chain reaction.” It can, in fact, be precluded or stopped, as Senator Harkin pointed out from a technological point of view, but I think also from a political point of view. We need to bring to bear all of the political will not only of this country, but certainly all of our allies to come down very hard on India and to discourage Pakistan from following suit or to giving any kind of incentive to any of the other nations who are seeking to acquire this technology, pointing to India as an example of a country that is now boasting it has a nuclear power status which gives them new political prestige in the world. I might take issue with that and I think many will, but that is part of the rationale, as well as their own determination——

Senator SHELBY. But it also makes the world more dangerous as we know it today. Is that correct?

Secretary COHEN. It makes the world more dangerous. It means that other countries will try to follow suit unless we are able to intervene politically and persuade them that they should not do so, and that may take a combination of economic sanctions and also some solidarity on the part of the world to condemn the action and not only condemn it verbally, but to take actions to voice this concern with material actions taken on their part.

INTERNATIONAL REACTION TO INDIA'S TESTING

Senator SHELBY. Are you optimistic on getting our allies and friends to be part of that solidarity with us, including the French and others who at times go their separate ways?

Secretary COHEN. The answer is I do not know at this point. We have had Japan say that they would impose sanctions. The French apparently, according to the report I heard on this morning's news,

said it would not, but that may change as well. I would hope that with President Clinton taking strong action quickly, that there will be solidarity of response on the part of our allies. I cannot predict how that will turn out, but that is what is necessary if we are going to dissuade other countries from following suit.

Senator SHELBY. But the bottom line is the detonations in India have changed the equation tremendously. Have they not?

Secretary COHEN. It has a significant impact on other countries.

Senator SHELBY. Thank you, Mr. Chairman.

Senator STEVENS. Senator Specter.

Senator SPECTER. Thank you very much, Mr. Chairman.

It is nice to have you back, Mr. Secretary, if only temporarily.

I have two questions for you and I will ask them both.

Secretary COHEN. Could you tell me why the yellow light is on before you started?

Senator STEVENS. That is to caution him. [Laughter.]

Senator SPECTER. I am going to use up the balance of Senator Shelby's time, Mr. Secretary.

We all know about the nuclear explosion in China. We have seen already the immediate ramifications of Pakistan, likely to do the same. North Korea may follow suit. China is going to be jeopardized. Just how important is the Nuclear Test Ban Treaty for the world security, for world peace? How hard will the administration and you be pushing to see to it that the Senate takes it up and at least considers ratification?

The second question I have for you relates to the current controversy with Israel. We had a briefing last night from Secretary of State Albright, and while she did not discuss the specific figure, there has been a lot of publicity of 13.1 percent withdrawal, further deployment, and it seems to me that the question of Israeli security is something which has to be determined by the Israelis just as a fundamental matter.

But I do wonder. I did not have a chance to ask her this question yesterday. You know the sessions in Senate bill 407. There is not a whole lot of time to ask her whether there had been an analysis made by our military people, by the Secretary of Defense, for example, as to whether the proposal pushed by the United States would at least in the eyes of experts in defense adequately assure Israel's security.

I do not say that that would be a substitute for Israel's independent judgment, but I would be interested to know, Mr. Secretary, whether you or the Department of Defense or anybody that you know of has made an independent analysis of the United States position on what Israeli redeployment should be as to whether at least the United States conclusion is, from a knowledgeable point of view, that there is adequate security for Israel.

COMPREHENSIVE TEST BAN TREATY

Secretary COHEN. With respect to your first question, Senator Specter, I am a strong believer in the Comprehensive Test Ban Treaty. I think the Senate should take it up. I think you should ratify it as quickly as possible, and I believe that is the position of President Clinton and the Secretary of State. We have all called to try to see if that cannot be scheduled as quickly as possible. We

would like to see it as soon as possible. There are not many legislative days left in this session. So, we place a high priority on it.

ISRAELI SECURITY

With respect to Israel, I must say that I have not made an independent analysis of any formulation pertaining to Israeli security. I was recently in Israel and we cooperated very closely, I might add, during the buildup of the Iraqi crisis starting last October, November, right through February. We worked very closely with Israel. I continue to work closely with them to make sure that we have satisfied that we are doing whatever is necessary to help them in defining their own security needs, but I have not made an independent analysis of any formulation.

Senator SPECTER. I thank you for the succinctness of your answers. It gives me a chance for a third question.

NATO EXPANSION AND RUSSIA

I voted against the NATO ratification for expansion and I did so because of the concern that I have that the inclusion of the other three countries may give radical elements in Russia a political foothold and that they may come to power. We all know that the Russian army has disintegrated very materially but that they have enormous nuclear capability. I would like your assessment to a question as to whether there was any—to what extent do you see at all, 1 percent, 2 percent, because the consequences are so cataclysmic if a radical comes to power and uses the nuclear force—to what extent at all do you see any risk that the radical elements in Russia might come into power as a result of NATO expansion and pose any risk at all of a nuclear confrontation?

Secretary COHEN. Well, my personal judgment is that the expansion will not contribute to radical elements coming into power. We have maintained very strong lines of communication. As a matter of fact, just yesterday morning I spent about 45 minutes on the phone with Marshall Segeyev, the defense minister of Russia, talking about ways in which we can continue to cooperate. I was asking about ratification of START II and what that will take.

We have, for example, a delegation coming from the Duma next week. One of the complaints I have found from the Duma members is they do not have enough contact with you, meaning you, the Senate. Senate Members no longer travel to Moscow as much to meet with them. I am not talking about you, Senator Specter, but they do not feel that they are getting the kind of reciprocal attention that would be warranted.

So, when this delegation comes, I am going to meet with them. I hope as many Members of the Senate and the House can meet with them to build upon the relationships that are important, to make sure, as best we can, that we will not have any kind of a radical element coming to power relying principally upon nuclear weapons.

I think the Nunn-Lugar funding, for example, the cooperative threat reduction funds, should be approved. A very important program. When I was in Moscow in February, I went out with Marshall Segeyev to one of the sites where we are, in fact, helping

them to reduce their nuclear weapons. We want to continue those kinds of programs.

But I think as far as this enlargement is concerned, it will not contribute to that kind of a risk.

Senator SPECTER. Thank you for your answers, and thank you for the fine job you are doing.

Senator STEVENS. Thank you, Senator.

Mr. Secretary, I was late because we had to have a meeting of the subcommittee chairmen of this committee to determine what we are going to do about the budget. We are substantially under the budget. Primarily that comes about because the President assumes a whole new series of revenue streams coming into the budget process, but none of them are available to this committee until they are approved by Congress and become law.

I have asked each of the subcommittee chairmen to review his or her budget and tell me whether there is anything we can eliminate or reduce in any function of Government. Since I am chairman of this subcommittee, I am looking at that myself.

I am reminded that when I got that Forrestal Award the other night, my staff and I went back and reviewed Forrestal's life and Forrestal's recommendations for change at the period at the end of World War II.

We are coming into a new century now, and you are Secretary of Defense at a very propitious time. So, I want to ask you some unfair questions that I do not expect you to respond to now but perhaps we can discuss them later.

What has been done in the Pentagon as we have closed base after base? I do not see ring after ring in the Pentagon being closed. Do we see need for a service Assistant Secretary, Under Secretary, and Assistant Secretaries for every service? Do we still need the redundant systems in the Department of Defense itself, the Under Secretary, the Assistant Secretaries? Do we need as many CINC's as we have got in the country?

In other words, have we closed down the management structure as we have closed down the structure for housing our forces, and do we really need to think about changing the whole system? We are in a different period now. We are going into a new really space age type of warfare. Maybe we ought to have a Secretary for communications and one for intelligence and one for deployment policy.

It seems to me we are structure bound in the Department, and the only option you have right now is to close more bases. I think we ought to really look at this system and see what we need for the next century in terms of defense. I tell you, my poet friend, you are the one to do it if we are going to do it.

Now, we need another Forrestal and I do not think I have the position he had. You have. I think it is time you answered some of our questions. What can we do to eliminate some of the costs of managing the military so that we can preserve the force we need to defend our country?

Now, with that, my friend, I will listen to your comments and then I will go vote. All right?

Secretary COHEN. OK, and how much time before you have to vote?

Senator STEVENS. I have got at least 15 minutes to listen to you.

STREAMLINING AND REFORMING DOD

Secretary COHEN. OK. Let me give you a 15-minute dissertation on what is taking place.

I agree with you in terms of reforming the way in which we do business in the Pentagon. That is principally the reason that we initiated the defense reform initiative, the DRI. You have a copy of that, and I might point out to you that when I went to the services and said, I want you to start taking some people out, we have got to get the manpower levels down because that is where I can get the savings to put into the procurement, I said I am going to take it out of hide as well.

I expected and we will cut roughly one-third of the people in OSD, my office. That is 1,000 people will be eliminated from the positions in an 18-month period. It does not translate into big dollars, but I want it to be a big symbol that we need to change the way in which we are doing business.

A lot of the structure that has accumulated over the years has been political in nature. If I could reform the system on my own, I could make a number of changes. Unfortunately, I would not have the authority to do that. But I can tell you that working with Dr. Hamre, we do have a very strong blueprint about changes that we are conducting now and making in the way in which we do business. We are moving to a paperless society. We are eliminating thousands of pages of regulations. You now have to go to the Internet in order to get those regulations. We are contracting through the Internet now and will be almost wholly by the year 2000, 2001. So, we are making a number of changes as we are moving into this cyber age of ours and it will be reflected in the way in which we are going to manage the Department differently.

But I will need political support. I cannot change the structure of the operations of the Pentagon globally in terms of the Secretaries, Assistant Secretaries, and CINC's and so forth without considerable support from the Congress. So, I will call upon you for changes I will need to have made statutorily.

Senator STEVENS. You draft me the law to give you that authority, a command consolidation commission, or whatever you want to call it, and I will introduce it. If we cannot get it out of the authorizing committee, I will put it in your bill. We need to have that kind of reform to lead, and if you do that—if you do that—if we get you the authority, I will support your Base Closure Commission.

Secretary COHEN. I will even give you the proposal in blank verse. [Laughter.]

Senator STEVENS. Thank you, Bill.

ADDITIONAL COMMITTEE QUESTIONS

By the way, the Secretary used to come first and we changed that because there are developments through the period of time after we review all the departments of your Department, and we brought you last. So, you get more heat than your predecessors did, but you do well. Thank you very much.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

DD-21 ACQUISITION STRATEGY

Question. Mr. Secretary, recent news reports coming out of the Pentagon have highlighted that the Navy and the Department of Defense may be considering changes to the current DD-21 acquisition strategy due to a perceived lack of competition. I understand that Dr. Hamre met with Defense Acquisition Officials to discuss this issue as recently as yesterday.

As you are aware, the Navy issued a request for proposals (RFP) that requires potential offerors to respond by May 22, 1998. I understand that the RFP requires offers to establish a process for ensuring competition and innovation throughout the DD-21 program. Also, I've been informed that over 80 percent of the systems and subsystems provide opportunities for competition and innovation.

Is there anything in the RFP that prohibits any other potential offeror from bidding on this program?

Answer. The Navy sought up to three independent offerors for Phase I of the DD-21 solicitation. The RFP was drafted and issued with the clear intent of having at least two offerors submitting bids. There was nothing in the RFP that prevented other potential offerors from bidding on the program.

Question. Doesn't the existing DD-21 acquisition strategy provide ample opportunity and incentives for industry participation and competition, and benefit significantly from the Government's large investment in the Arsenal Ship Program?

Answer. Yes. The opportunity exists for industry to bring forward several teams capable of making acceptable bids for DD-21 development. Some individual companies interested in bidding on DD-21 are having difficulty making acceptable business arrangements with other companies which would lead to formation of a second or third DD-21 team. The Navy is discussing the issue with industry in order to determine the range of possible solutions to this problem.

Question. Is it fair to say that the strategy permits two very important matters to go forward: shipyard teaming to maximize the return on Government and industry investment in common design and production process; and, a shipyard as prime contractor?

Answer. Yes. The current strategy (as of May 13, 1998) would allow for those particular matters to be included in an industry team bid proposal for DD-21 development, should an industry team choose to do so. However, the Navy is concerned about the apparent inability of industry to form a second team to compete on DD-21 development. The Navy believes that intense industry competition at the system level is required in order to meet the aggressive cost and performance goals provided in the DD-21 Operational Requirements Document. As of May 13, 1998, the Navy is discussing its concerns with industry and interested Congressional staffs in an effort to craft an acquisition strategy that will meet all of the Navy's requirements for competition in the DD-21 program.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

Question. Mr. Secretary, I commend your personnel commitment to achieving the Department's investment goal of \$60 billion in annual procurement spending. I am, however, concerned that the QDR planning assumptions to achieve this goal are unrealistic considering the historic migration of procurement funds to other accounts, the rejection of another BRAC round, and the uncertainty of savings from acquisition reform. If these savings do not materialize, how do you intend to reach this goal?

Answer. The Department is on track to achieve the goal of \$60 billion in procurement by fiscal year 2001. In fiscal year 1999 we increased procurement by \$3.6 billion over the fiscal year 1998 funding level, which was within \$300 million of our \$49 billion goal for this year. Even in the absence of more rounds of BRAC we hope to continue this track to hit the \$60 billion target in fiscal year 2001.

But, without congressional approval of BRAC rounds in fiscal year 2001 and fiscal year 2005, we will not be able to sustain this procurement program into the next decade. The \$3 billion in savings that two BRAC rounds will provide is critical to our longer term modernization plans. The Department has a number of significant programs that will be entering procurement in the next decade, including the Joint

Strike Fighter, the DD-21 destroyer, the Comanche helicopter, various missile defense programs and a number of new generation satellites.

Question. Does the Department have a comprehensive plan to address the rapid and massive aging problem of its major warfighting equipment, including aircraft, tanks, and ships? To what extent are life extension programs being considered? At what point does aging equipment make an impact on the decision to use force?

Answer. The Department is executing an integrated plan to mitigate and reverse the aging of our major warfighting equipment. This plan encompasses the following elements: Reinventing our logistics processes to enhance equipment sustainment while reducing O&M costs in order to provide increased funding for modernization; increasing procurement funding to \$54 billion by fiscal year 2000; reengineering our acquisition process to reduce costs, enabling more rapid modernization; and adopting modernization of spares to enable rapid technology insertion into existing platforms.

These DOD-level initiatives complement ongoing efforts within each Service to assess their capabilities and projected modernization requirements.

The Department relies on each Component to determine their equipment and systems requirements. They also determine when new procurement programs or life extension programs are necessary to meet their requirements. Life extension programs are primarily considered for their cost savings or cost avoidance attributes. In some cases, life extension programs are used to "fill the gap" prior to delivery of new equipment or new systems.

Ongoing "life extension" programs include efforts by the Services to modernize equipment to meet current threats. Examples include the remanufacture and modernization of the 2.5 ton truck (M35A2) under the Extended Service Program and the AV-8B remanufacturing program.

As part of the normal programming and budgeting process, the Department and the Service Components review readiness related areas and modernization efforts. Through this process, the Department can ensure that the current and future condition of warfighting equipment and systems will not impact a decision to use force.

Question. How much does the Department expect to spend before completion of its operations in the Balkans?

Answer. An estimate of total expenditures is not possible since we do not currently have a specific end date. Rather than focus on a specific end date for operations in Bosnia, the goal is to achieve a secure environment without further need for a NATO-led military force. NATO is pursuing a transition strategy with the goal of progressively reducing force levels, taking account of the security situation in theater and the progress toward implementing the Dayton Agreement. NATO's intent is to review tasks, the security environment, and risks at about 6-month intervals with reductions in force size beginning, if possible, after the national elections in September 1998.

Question. If the fiscal year 1999 budget request for Bosnia, which you are requesting that Congress designate as emergency spending, is insufficient to cover actual peacekeeping expenses there, will the Department need to seek supplemental appropriations that also are considered "emergency" spending?

Answer. The fiscal year 1999 request is designated an emergency because the requirement was not identified before the budget was submitted. Given the current assessment of forces required to support operations in Bosnia, the fiscal year 1999 estimate of \$1.9 billion will be adequate to meet our requirements. However, if an unforeseen situation should develop that the Department could not accommodate from available funding, then alternative methods of financing would be explored, including an emergency supplemental request if the situation warrants.

Question. What are the opportunity costs associated with the prolonged peacekeeping operations in Bosnia? Specifically, what additional weapon systems would the Department have been able to procure if it had not been forced to execute the deployment to Bosnia?

Answer. It is the Department's responsibility to be ready to respond to crises that threaten the nation's interests. The situation in Bosnia is such a crisis and we have made a commitment to help lead the NATO peacekeeping effort. To avoid serious impact on other defense needs the Department proposed financing the fiscal year 1998 Bosnia operations with an emergency supplemental appropriation. I am very grateful for your cooperation and assistance in providing these critical funds to the Department in a timely manner. In a similar vein, the Administration submitted a budget amendment to finance the projected fiscal year 1999 costs from a reserve established by OMB for this and other emergent requirements. If this amendment is not approved, it will have a devastating effect on our efforts to achieve the readiness and modernization goals outlined in our budget request.

Question. Despite extensive anecdotal reports that near-term readiness is eroding, many unit commanders and regional CINC's contend that they do not have accurate or reliable statistics that reflect the true state of their forces. What is the status of the Department's efforts to provide a better gauge of readiness? Do you believe that it is possible to develop a system that is capable of identifying trends and therefore could be used for predictive modeling?

Answer. We are continually improving our ability to assess readiness and detect problems and have made great progress to ensure that readiness issues receive top management attention. The Senior Readiness Oversight Council, called the SROC, was created to provide a monthly forum where the senior DOD leaders can review and discuss readiness issues. The SROC is chaired by the Deputy Secretary, with membership including the Vice Chairman, the Under Secretaries of Defense, the Service Chiefs, and the Under Secretaries of the Military Departments.

We have instituted and evolved a monthly in-depth readiness assessment process by the Joint Staff, the CINC's, and the Services called the Joint Monthly Readiness Review (JMRR). The JMRR, is a monthly forum led by the Vice Chairman, JCS, to assess our readiness to meet the spectrum of missions as defined in our National Military Strategy. We continue to refine both the SROC and JMRR processes to help identify, evaluate, and resolve major readiness concerns.

DOD is also sponsoring several initiatives to improve current readiness reporting. The Joint Staff is working to develop an improved readiness assessment system that uses the power of information technology to improve the timeliness of the reporting process and integrate the many aspects of force readiness. Our Military Departments also continue to improve and refine their unit reporting systems to ensure accurate and timely information.

Section 322 of the 1998 National Defense Authorization Act directed the Secretary of Defense to expand the scope of the readiness reports submitted to Congress. These readiness reporting system enhancements are currently underway, and DOD is preparing to submit its first expanded report to Congress in October 1998. This expanded readiness report will include thirteen additional readiness reporting categories comprising over two hundred and fifty additional readiness indicators designed to provide Congress with a more in-depth view of DOD readiness status and trends.

The Department already uses numerous indicators as warning signs of pending readiness problems. We routinely monitor indicators of personnel, training, and equipment readiness. Some examples of personnel indicators include measures of recruit quality, training retention, personnel turbulence, force manning, critical skill manning, and PERSTEMPO. Equally important are the equipment and training indicators. We routinely follow trends in maintenance backlogs, equipment capability rates, Operations tempo, named deployments, and spares funding. Several of the indicators, such as mission-capable rates, have been monitored for many years and have proven their usefulness in assuring ready forces. Others—such as our efforts to capture the effects of deployment tempo on our personnel—are relatively new, and we are analyzing the data to assess its ability to predict trends in personnel readiness. Although no readiness system can guarantee accurate predictions, the Department does use such indicators to help prevent readiness problems. For example, in a Senior Readiness Oversight Council meeting last year, the Air Force noted that the aviation bonus “take rate” for Air Force pilots was showing a marked decline. This was one of the first signs of the emerging pilot retention problem. As a result of this indication, the Department proposed additional aviation career incentives and other significant actions to help mitigate the problem.

The Department is committed to having a trained and ready force and to minimizing any risk in employing that force should the need arise. It is to that end that the Services, the Joint Staff, and the Office of the Secretary of Defense continue to refine their readiness reporting systems.

Question. In any of your discussions regarding BRAC or alternative approaches to reducing excess infrastructure, have you considered consolidating primary helicopter pilot training? Would you agree that the consolidation of primary helicopter training furthers your goals of reducing excess capacity in infrastructure, promoting jointness, and eliminating duplication of effort?

Answer. There has been no consideration subsequent to BRAC 95 concerning the issue of potential consolidation of primary helicopter training. Consolidation of undergraduate helicopter pilot training (UHPT) has been reviewed over time and in previous BRAC deliberations as an area of potential interest. These reviews considered many variables, including operational effectiveness, promoting jointness, and cost effectiveness (reducing excess infrastructure, eliminating duplication of effort, etc.). Current practices have the Navy and Marine Corps conducting consolidated

UHPT at Whiting Field, Florida, and the Army and Air Force training together at Fort Rucker, Alabama.

QUESTIONS SUBMITTED BY SENATOR PATRICK J. LEAHY

LEGACY PROGRAM

Question. Conferees for the fiscal 1998 Defense Appropriations Bill included \$100,000 of the \$10 million Legacy Program account to develop a management plan for the 1776 Revolutionary War gunboat recently discovered in Lake Champlain. This work is being carried out through the Underwater Archeology Branch of the Naval Historical Center. It is my understanding that approximately \$7 million in Legacy funds have been released and the initial Underwater Archeology allocation amounted to some \$200,000. While the Department has made a strong commitment to the 1776 gunboat initiative, I remain concerned since the total fiscal 1998 requirement for Underwater Archeology is closer to \$400,000. Would you support the release of the remaining \$3 million in fiscal year 1998 Legacy appropriations with an additional \$200,000 allocation to Underwater Archeology?

Answer. I am pleased to inform you the Department recently released the additional \$3 million in fiscal year 1998 Legacy appropriations. Of this amount, the Department provided an additional \$272,000 to the Naval Historical Center for its Underwater Archeology program. This means the total fiscal year 1998 Legacy funding for Underwater Archeology from the Legacy program is \$472,000.

UNDERWATER ARCHEOLOGY PROGRAM

Question. Would you support permanent funding for the Underwater Archeology program in future fiscal years?

Answer. The Department of Defense recognizes the importance of preserving its cultural heritage, including its underwater archeological resources. The Navy Historical Center is the Department of the Navy (DON) command responsible for oversight of those resources. The Department, however, is currently faced with significant competition for limited funds from many areas, including mission essential programs, modernization initiatives, and quality of life projects. While we expect to be able to fund our underwater archeology program at an appropriate level to meet our needs, these constraints currently require us to remain flexible and therefore prevent us from supporting permanent funding for the Underwater Archeology program.

SUBCOMMITTEE RECESS

Senator STEVENS. If there is nothing further, the subcommittee will stand in recess.

[Whereupon, at 11:46 a.m., Wednesday, May 13, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1999

WEDNESDAY, MAY 20, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:01 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Shelby, Inouye, and Bumpers.

DEPARTMENT OF DEFENSE

SECRETARY OF THE ARMY

STATEMENTS OF:

HON. ROBERT M. WALKER, ACTING SECRETARY OF THE ARMY

GEN. DENNIS J. REIMER, CHIEF OF STAFF

OPENING STATEMENT OF HON. TED STEVENS

Senator STEVENS. Good morning, Mr. Secretary, General Reimer. I understand this morning, General, we are honored by your spouse who is here. We welcome that. I do not know whose shoulder she is looking over, yours or mine.

General REIMER. She is here to protect me, Mr. Chairman.

Senator STEVENS. We extend greetings to you, Secretary Walker, as your first appearance as Acting Secretary. We are going to mark up this bill on June 2, and we have many of the problems still that we encountered in the 1999 supplemental. Those funds came in as an emergency, and now we have a real problem on the 1999 budget to balance readiness and modernization.

You two gentlemen face the ongoing challenge of achieving a true partnership between the Active Army and Reserve components, and I think we have witnessed considerable progress this past year in the budget and in the efforts to build new bridges within the Army.

With the new Army Guard director, the new Chief of the Guard Bureau to be named, Congress will give you time to implement the initiatives started this year and let the new Guard leaders establish their priorities working with you.

I was pleased to have that conversation with you, General, as we left the Secretary's office the other morning.

The actions that you take in formulating the Army's fiscal year 2000 budget and the out-year budget plan will be proof of the

Army's commitment to realize the sort of partnership that must exist in the Army as it does in the Air Force and the Air Guard.

I do want to welcome my friend here, and see if he has an opening comment first. Senator Inouye.

STATEMENT OF HON. DANIEL K. INOUE

Senator INOUE. Thank you very much.

Mr. Secretary and General Reimer, I join my chairman in welcoming you here this morning and I appreciate your forbearance and willingness to appear. I know that this is the third time we have made this attempt.

Mr. Secretary and General Reimer, some say that the Army is at a crossroads, that you are preparing yourselves for the 21st century. Over a 2-year period from 1997 to 1999 your forces will be reduced from 495,000 to 480,000. You are also spearheading an effort to digitize the battlefield and modernizing your forces.

You have added an emphasis to reduce the infrastructure by trimming the civilian workers. I applaud your efforts, noting that just a few years ago the Army insisted it could not reduce its manpower below 495,000.

Others are questioning whether a smaller force structure will be sufficient, and there are some who criticize your modernization programs, pointing out that the Comanche helicopter, which has already been in development for more than 15 years, is still nearly a decade away from production.

Others question whether the weight of the Crusader is too heavy for the battlefield, and argue that it no longer is planned to incorporate state-of-the-art technologies.

There is one thing about this city. This city is filled with critics, and I suppose there will always be critics, so this is your opportunity to discuss these and many other issues of interest to this committee, and we look forward to listening to your views.

Mr. Chairman, I want to close by thanking Secretary Walker for the fine work he has been doing. As you know, Mr. Walker was selected to be the Under Secretary of the Army, but has been Acting Secretary for several months. I should also point out that during this time there has been no Assistant Secretary for Acquisition, none for Civil Works, and no one to replace him in his previous job as Assistant Army Secretary for Installations.

I note this because this week the Senate confirmed the nominee for Acquisition Matters, and finally, Secretary Walker, you will get some help.

Mr. WALKER. Thank you. Thank you, Senator.

Senator INOUE. So again, General Reimer, Secretary Walker, I look forward to your testimony.

Senator STEVENS. Senator Cochran, do you have a statement?

Senator COCHRAN. Mr. Chairman, I join you and Senator Inouye in welcoming the Secretary and the General to our committee, and thank them for their cooperation with us as we try to review the budget request and make decisions about the level of funding for all the various programs in the Army. Thank you.

Senator STEVENS. Senator Shelby, do you have any comments?

Senator SHELBY. I do not have any statement, but I want to join you, too, Mr. Chairman, in welcoming General Reimer here today and Secretary Walker.

Senator STEVENS. Gentlemen, we will print your statements in the record in full. You may use the time as you see fit.

STATEMENT OF HON. ROBERT M. WALKER

Mr. WALKER. Thank you, Mr. Chairman. As you know, I spent 15 good years working on this committee, and they were the best years of my life, until I went to the Army, and I have got to tell you that being able to work with America's soldiers—

Senator STEVENS. There is life after the Senate if you are young enough, Mike. [Laughter.]

Go ahead. Sorry about that.

Mr. WALKER. Mr. Chairman, I turned 50 this year, so I have been thinking a lot about that.

But working with America's soldiers has been for me absolutely the best experience of my life. It does not get any better than that, and serving as their Acting Secretary for these past 5 months has been a tremendous honor, and I very much appreciate the support and good words that you and members of this committee have given me, but I especially want to thank you for the strong support that you give to our soldiers. It is recognized, and it is deeply, deeply appreciated.

A good example of that support was the extraordinary effort that this committee made to secure the supplemental. Without those funds Army readiness would have broken, because we could not have absorbed over \$1 billion in the last quarter of the fiscal year, so we thank you very much for this committee's leadership in securing the supplemental.

Mr. Chairman, at risk of sounding like that old adage, "What have you done for me lately," I am here this morning to ask you for a little bit more help. As you know, when the Army put its budget together the decision had not been made to extend the Bosnia deployment and, as a result, there are no funds in the fiscal year 1999 Army budget request for contingency operations.

Mr. Chairman, we cannot maintain readiness in the Army next year without the additional allowance for contingencies which the President has requested in the 920 function of the budget. Now, I understand the concerns of this committee on this issue, but I must report to you that we cannot manage the Army without those additional funds, so I respectfully ask the committee to give this request very careful consideration before the appropriations process is complete.

Mr. Chairman, as you know, the Army is very busy these days. In 29 deployments since the end of the cold war, the Army has provided more than two-thirds of the personnel to those deployments. We are doing that heavy lifting for about one-fourth or about 25 percent of the Defense budget, so America is getting a great bargain from her Army.

Today, almost 33,000 soldiers are deployed in 76 countries around the world, and to help ease the tempo of the Active Force, over 6,000 of those soldiers are from the Guard and Reserve, so the total force is hard at work.

Now, Mr. Chairman, with regard to the total force, I thank you for your comments earlier about the efforts that are being made, and I know how important this issue is to you and to the entire committee. Frankly, no other issue has commanded more of my time since I have been the Acting Secretary, and I want to assure you and the committee that we are doing our best to faithfully implement Secretary Cohen's total force integration policy.

General Reimer and I are personally committed to reestablishing a trusting relationship. We just finished work on the program objective memorandum [POM], and the Guard and Reserve were at every meeting. They were equal participants, and that is the right way to do business, so we will continue to make decisions as one seamless Total Army team.

Now, Mr. Chairman, these are tight budget times for the Army. It is difficult, making ends meet, and I must report to you that we must secure full funding of our operations and maintenance [O&M] request for fiscal year 1999. It is the absolute minimum that we will need to keep the Army trained and ready during the next fiscal year.

As you know, last year Army O&M was reduced \$450 million below the budget request. That reduction did have an impact on the field. We essentially had to levy a tax on the major commands to pay for it and, as a result, operating tempo [OPTEMPO] paid for much of the shortfall, leaving less flexibility for commanders to take care of other readiness-related bills as the year progressed, and we still have a shortfall.

To make up for that shortfall, we will soon be sending you a re-programming request to ensure that we can maintain readiness for the rest of the fiscal year. My concern for fiscal year 1999 is that we have absolutely no margin for error.

The budget request before the committee includes over \$1,300 million in efficiencies and savings. We did that to shift resources from operations and support to our investment accounts, and that was the right thing to do. But if those efficiencies are slow to materialize and if the O&M budget is also cut, then readiness will be impacted. So I ask the committee to support full funding of our O&M request for fiscal year 1999.

Mr. Chairman, with regard to our procurement account, since the end of the cold war we essentially took a procurement holiday in order to pay for high levels of readiness. We have reached the point where we can no longer do that, so this year we made a deliberate decision to begin a revitalized modernization program. The procurement request before this committee today is 17 percent higher than last year as a result of that.

We simply cannot put modernization off any longer. Our equipment is aging and wearing out, and technology is growing by leaps and bounds. But today, 80 percent of our fielded weapons systems have technology that is 1970's technology, and our soldiers are driving trucks that are older than they are, so we must get on with the task of modernizing an information-age Army. So I ask for the committee's support for our procurement request.

Now, Mr. Chairman, I know this is not the authorizing committee, but I completely agree with Secretary Cohen that we will need

additional base closures if we are to secure the funding that we will need in the future to modernize the Army for the 21st century.

I understand how difficult base closures are. When I was an Assistant Secretary, I was the Army's base closure official. It was one of the hardest things I ever did. But as difficult as base closures are, they do save money—money that we will desperately need to invest in the Army of the future.

By the year 2001, we will be saving almost \$1 billion annually from our four previous rounds of base realignment and closure [BRAC], even after we account for the cost of environmental clean-up. But after those four rounds of BRAC, we still have excess infrastructure. So to help fund future modernization and future force structure, to help fund the future readiness of the Army, the next generation of Army leaders will need us to make some difficult decisions, and they will need us to begin to reduce our excess infrastructure now. So I would ask the committee for your support for additional rounds of BRAC.

Mr. Chairman, to conclude, when I became Acting Secretary, I said that every decision I made would be made with soldiers in mind. We do have the best Army in the world today for one reason, because our soldiers are the best of America. We owe them not only our respect and admiration, but we owe them a good quality of life and an opportunity to achieve their personal goals and aspirations.

PREPARED STATEMENT

I believe very simply that if we get it right with soldiers, all of these other issues will fall into place and we will be able to take care of the Army.

Mr. Chairman, thank you very much for the opportunity to appear today, and I look forward to your questions. Thank you.

[The statement follows:]

PREPARED STATEMENT OF HON. ROBERT M. WALKER

Mr. Chairman and members of the Committee: I am pleased to appear before you today to report on the state of the Army and to talk about the Army's proposed budget for fiscal year 1999.

A STARTING POINT

Since the birth of our Nation, America's Army has served the United States with honor, courage, and distinction, both at home and abroad, in peace and in war. At the threshold of the 21st century, the Army is a Total Force, an institution with people at its core—Active, National Guard, Army Reserve, civilian employees, families, and retired members. The strength and character of the Army's soldiers and civilians are the linchpin in maintaining our Army as the finest in the world.

The soldiers, civilians, and family members who comprise America's Army continue the legacy of superb service to our Nation with an exceptional mix of professionalism, selfless service, and personal sacrifice. With over 100,000 soldiers stationed overseas and, on any given day during the year, with another 30,000 soldiers of the Total Force deployed to more than 70 countries on joint and combined operations and exercises, America's Army continues to be a key player in our Nation's efforts to help shape the international security environment. You, and the entire Nation, can and should be proud of their achievements.

WHERE WE ARE TODAY

A new global security environment exists as a result of social, political, and military changes that have occurred during the past decade. No longer a world in which two hostile super-powers face each other, today's environment includes threats—and opportunities—in a wide number of areas.

While we no longer face the immediate threat of a rival superpower, there are states and other transnational actors who can still challenge our interests militarily and, increasingly, by asymmetric means such as weapons of mass destruction and cyber-terrorism. Make no mistake about it; we live in a very complex and still dangerous world.

America's Army has evolved to meet the challenges of this post-Cold War world. We are a strategically relevant member of the joint forces America can deploy to meet the challenges of today's world. Executing missions now requires a mobile Army that can be deployed rapidly wherever and whenever needed. In the last eight years, we have transformed the Army from a forward-deployed force to a capabilities-based force. The Army has reduced and redistributed its forces, closed and realigned bases, improved integration of Active and Reserve Components, and reorganized and redistributed its equipment pre-positioned overseas.

The Army is strategically relevant and has an important role in helping to shape a new international environment to bring about a more peaceful and stable world. While fighting and winning two nearly simultaneous major theater wars remains the foremost task, we must also respond to a wide variety of other potential missions. For example, we are fully involved in the Asia-Pacific region, an area of increasing importance to the American people. By building strong relationships through engagement activities in this region of the world, the Army helps foster trust and confidence, as well as contributes to the political security and economic stability of our friends, allies, and other countries. Our involvement in bilateral and multinational exercises, exchange programs, information sharing, and other contacts with militaries throughout the Asia-Pacific region are active methods for shaping the strategic environment in ways favorable to America's interests. In this vitally important area of the world, the Army has provided demining training in Cambodia and Laos; and shelter, processing, care, and security for Kurdish evacuees in Guam. Army soldiers have trained with their counterparts from Thailand, Japan, Korea, Australia, and other nations in a number of combined exercises.

Additionally, Headquarters, U.S. Army Pacific (USARPAC) co-hosts the Pacific Armies Management Seminar with the army of another Asia-Pacific nation on a biennial basis. This is a non-political effort with the purpose of providing a forum for discussion of common military issues in a professional environment. Additionally, this is the only regular gathering of the chiefs of armies in the Asia-Pacific region and is a major element of USARPAC's Expanded Relations Program.

In Europe, consider the George C. Marshall Center in Garmisch, Germany. Since its foundation in June 1994, the Center has been at the forefront of pioneering efforts to build an active environment for the growth of democracy and democratic institutions within the diplomatic and defense bureaucracies of the newly independent states of the former Soviet Union (FSU) and Central Europe. The primary teaching vehicle used by the Center is an 18-week course for senior foreign civilians and military officers from these countries.

The content of the course includes such subjects as western methods of defense organization, planning and budgeting, civilian oversight of the military, civil-military interaction, and the democratization process. Because of the synergy created within the Center, the Army trains all of our Eurasian regional specialists there. In addition to an excellent curriculum, study at the Center provides these American officer-students an opportunity to establish personal contacts within the various Central European and FSU governments. These contacts have reaped enormous dividends and strengthen a very successful program that produces our Army's Soldier-Diplomats.

The National Guard State Partnership Program, which began in December 1992, is another example of Army shaping activities. The program links U.S. states and emerging democracies of Central and Eastern Europe, Eurasia, and Latin America through ties between the state governor and state National Guard with the ministry of defense and the soldiers of the partner country. Our goal is to demonstrate, through the example of the citizen-soldier, the role of the military in a democratic society. The program seeks to build long-term institutional affiliations and people-to-people relationships while simultaneously assisting in the effort to establish democratic military organizations.

In Latin America, for example, the Army supports the U.S. Southern Command's efforts to bolster the emerging as well as more established democracies of the region. The area's past history of military intervention in politics and the instability created by narcotrafficking threaten Latin American democracies.

With regard to Latin America, the Army supports the National Security and National Military Strategies, as well as the Regional Strategy of the Commander-in-Chief through a variety of programs. Most important among these is the U.S. Army School of the Americas (USARSA), where we seek to convey to our Latin American

neighbors the know-how to conduct effective security operations while respecting democratic principles, especially the human rights of their people.

USARSA is truly relevant to the challenges we face in Latin America. The curriculum is derived from the Southern Command strategy, and emphasizes supporting democratic institutions, combating narcotrafficking, and respecting human rights. Last year, 60 percent of USARSA students came from the Andean Ridge and Mexico, key countries in our war on drugs; 20 percent were police.

USARSA is critical to our efforts to develop closer ties with Latin American militaries. The school effectively conveys our values to our southern neighbors. We carefully screen prospective students and are equally careful about what we teach. I have heard the concerns raised about this school, and I want you to know that today USARSA is teaching the technical skills and promoting the democratic values that support American policies and values.

The combination of Active Army participation in joint and combined exercises, army-to-army contacts, and humanitarian assistance and civic action projects around the world provide our allies a deeper understanding and appreciation of the U.S. Army's roles, missions, and capabilities. Additionally, these activities improve interoperability, increase the warfighting capability of our combined forces, and demonstrate to any potential aggressors our determination to maintain peace and stability around the world. Finally, these activities provide our leadership an opportunity to build and strengthen personal and professional relationships while providing valuable insights into the needs and hopes of our friends and allies.

As we take on these diverse missions, we continue to focus on our core competence: to fight and win the Nation's wars. Throughout history, forces on the ground have won wars and brought final conclusion to conflict. Only soldiers on the ground can take and hold territory. America's Army is able to project its forces and establish direct, continuous, and comprehensive control over land, resources, and people in order to achieve victory and ensure an enduring peace. Whatever the mission, one thing remains as clear today as it has throughout history: committing the Army commits the Nation. There is no greater expression of national resolve and will than to put our soldiers—America's sons and daughters—on the ground.

The inherent versatility of America's Army makes it the force of choice for the majority of military operations in support of the National Security Strategy. In 28 joint military operations since the fall of the Berlin Wall, the Army has repeatedly done the Nation's heavy lifting, accounting for over 60 percent of the forces committed to these operations, while consuming less than one-quarter of Department of Defense's budget.

The force levels recommended in the Quadrennial Defense Review (QDR) are the minimum necessary to carry out the National Military Strategy. We cannot reduce our capabilities below that level and still respond to two major theater wars. Further, we must begin to transform the Army by exploiting technological advances that will change future warfare. To do this with forces that remain committed to operational readiness, contingency operations, and engagement activities requires a predictable investment program and a fundamental re-engineering of support infrastructure. It is clearer than ever that we require additional rounds of base-closures to maintain force structure and ensure readiness in the 21st century. Both the Chief of Staff and I are in full agreement on this. We recognize how painful base closures are, but we must reduce our infrastructure to meet the requirements of the future.

For fiscal year 1999 and beyond, the world security environment will continue to be unpredictable, volatile, and dangerous; America's Army will remain ready to respond rapidly and decisively to any crisis around the world. Accordingly, we will continue the integration of Active and Reserve Components, enabling the Total Force to perform an increased number of missions more efficiently and effectively. Each component of the Total Force—Active, Guard, Reserve, and civilian—provides essential capabilities that give the National Command Authorities a range of options when dealing with contingencies.

FISCAL YEAR 1999 BUDGET

President Clinton has submitted an Army budget for fiscal year 1999 of \$64.3 billion. This budget is the result of a very careful assessment of our needs and priorities and reflects today's fiscal realities. More importantly, this represents a real increase over the fiscal year 1998 budget. This is the first increase since 1985, excluding Desert Storm.

Between fiscal year 1989 and fiscal year 1998 the Army's buying power has been reduced 37 percent. The greatest challenge facing the Total Army is balancing readiness, quality of life, and modernization within available resources. In addition, since

1989 the Army has seen the number of operational deployments increase 300 percent from the Cold War period.

Maintaining this delicate balance between requirements and resources is increasingly difficult. Funding must be adequate, sustained, predictable, and synchronized to meet the readiness, force structure and endstrength, quality of life, and modernization requirements of today and the uncertain future.

ARMY PRIORITIES

As we look to the future, the Nation's interests require America to continue to field the best Army in the world. Our priorities are to maintain current high levels of readiness, to resource priority modernization requirements, and to maintain a good quality of life for all members of the Total Force.

Last year's budget request assumed that U.S. forces would complete the mission in Bosnia by the end of June 1998. As the committee is aware, the President has determined that an extension of the U.S. mission is required to ensure continued compliance with the Dayton Agreement. The Administration will submit a non-offset budget amendment, designated as an emergency under the Budget Act, to provide for the required funds during the remainder of fiscal year 1998. In addition, the fiscal year 1999 President's budget includes an allowance for undistributed funds to cover contingencies such as the Bosnia mission and natural disasters.

I strongly urge the committee to approve the President's requests. The Army cannot absorb these costs within current budgets. Timely passage of the fiscal year 1998 supplemental is necessary to prevent severe readiness problems in the Army. Without the approval of these funds, Army commanders will be required to curtail training and the readiness ratings for Army combat forces could slip below that required to support the National Military Strategy. Failure to receive required non-offset funding in fiscal year 1999 would also reduce readiness below acceptable levels in the next fiscal year.

Readiness

Readiness continues to be our number one priority. The fiscal year 1999 request provides adequate funds to maintain readiness and ensure the Army's ability to fulfill the National Military Strategy. High-quality people, both soldiers and civilians, in all components of the Total Force are the defining characteristic of a ready force. Today's strategic environment demands highly capable and flexible soldiers and civilians, able to adapt to complex, dangerous, and ever-changing situations throughout the world. Many factors contribute to readiness; however, three key contributors are recruiting, training, and leadership.

Recruiting.—Today's recruits continue to be the best educated and disciplined in our Army's history. To succeed now and into the future requires that we sustain the high quality men and women serving in the Army today. They are the indispensable and decisive element in any strategy.

During fiscal year 1997, the Army was able to overcome many significant challenges and successfully recruited 82,087 soldiers to meet end-strength requirements. Quality marks for these soldiers meet established Department of Defense goals. More than 90 percent possessed high school diplomas; over 68 percent scored in Test Score Categories I-III A on the Armed Services Vocational Aptitude Battery; and fewer than 2 percent scored in Test Score Category IV. The ten percent without high school diplomas possess a GED or equivalent high school education and must score in the upper half of the aptitude test. During fiscal year 1997, the Army also improved retention and decreased attrition.

The Army is on track to meet its fiscal year 1998 accession mission. Our success in the current fiscal year and the out years will be to some extent, a reflection of the extraordinary efforts made during fiscal year 1997—increased enlistment bonus and educational benefit funding; increased maximum enlistment bonus payments for selected military occupational specialties; increased maximum college loan repayment; increased educational benefits (a combination of the Montgomery GI Bill and the Army College Fund); increased numbers of production recruiters; and increased funding for advertising and recruiter support.

While the Army continues to enjoy success in recruiting, the strong domestic economy and tight labor market have created an extremely challenging recruiting environment. Despite these challenges, the Army's professional recruiters are doing a masterful job in both quantitative and qualitative terms. We must support them and continue to give them the tools, including the resources, necessary to guarantee their success.

Training.—Quality training is essential to maintaining a decisive battlefield edge. Readiness is directly related to our ability to provide realistic and relevant training. However, our military commanders indicate that the quality of training is not nec-

essarily related to the quantity. In today's operational environment, soldiers and families are already under significant stress from operational deployments. Leadership is the key to ensuring that the training schedule is not overcrowded and that the focus is on providing high quality training events to maintain readiness.

Realistic and relevant training—conducted at the proper frequency—is the glue that bonds the Total Force together as an effective fighting force. In the coming year, we will examine how we train at our Combat Training Centers in order to ensure that they offer the full range of threats we anticipate our soldiers will face in the years ahead. This includes weapons of mass destruction, increasing urbanization, and the presence of noncombatants on the battlefield.

We are toughening the training of our recruits to improve "soldierization." This year we will expand basic training by one week. This will enable us to focus on the values of America's Army and to institute a three-day warrior field exercise designed to challenge recruits to meet their full potential as soldiers.

Leadership.—A ready Army is not only well trained, but also well led. Our Force XXI process of change has already taught us much in terms of equipping and training the force for the future. Likewise, this year will see significant developments in our Force XXI leader development programs. We have initiated a new Officer Efficiency Report and have implemented Officer Personnel Management System XXI.

The backbone of our Army is the world's finest non-commissioned officer (NCO) corps. Today's strategic environment requires disciplined, well-trained and ready forces. Our NCO corps is the key to success. From the flooded streets of America's cities to the strife torn regions of Bosnia-Herzegovina, the Army's NCO's demonstrate courage and commitment on a daily basis. In the classrooms and motor pools, on the firing ranges and at our Combat Training Centers, the Army's non-commissioned officers exemplify professional competence. They demonstrate a willingness to take prudent risk, the boldness to seize the initiative, and the determination to do their best; qualities that have been the hallmark of America's soldiers since before we were a nation. On a daily basis, both at home and abroad, our NCO's serve as role models for our soldiers, as well as people around the world, standing as an example of American values and as the embodiment of a professional military.

Modernization

Modernization is the guarantor of future readiness. Far too often over the last several years, we have been forced to mortgage our future in order to preserve near-term readiness. When supplemental funding for the Gulf War is excluded, fiscal year 1998 was the thirteenth consecutive year of declining Army resources. During that period modernization declined 65 percent while we lived off the drawdown. By fiscal year 1998, Army procurement comprised only 15 percent of all Defense procurement.

The Army modernization strategy prioritizes investments over time and reflects the linkage of our modernization plan to the operational concepts described in Joint Vision 2010 and the patterns of operation outlined in Army Vision 2010. The Army Modernization Plan is a comprehensive program of improvement designed to ensure that America's Army remains the world's preeminent land force.

Our modernization efforts are designed to provide America's soldiers with the best weapons and equipment available; weapons and equipment that are suitable for operations at all levels of the operational continuum. We are focused on maintaining our current combat overmatch and achieving Information Dominance in the near-term. In the long-term, we seek to field an Army capable of achieving Full Spectrum Dominance. Our revised modernization strategy investment goals are designed to achieve five major objectives:

- Digitize the Total Army by 2010.
- Maintain Combat Overmatch.
- Recapitalize the Army.
- Fully integrate the Active and Reserve Components.
- Focus Science and Technology (S&T) efforts on leap-ahead technologies required for the Army After Next.

Military hardware, operational concepts, doctrine, and command initiatives are neither absolute nor static. Change is constant. The armies of the past have all required reorganization and restructuring to meet then current requirements. The Army of Desert Storm must likewise change to meet the challenges of the future. The fiscal year 1999 budget reverses the decline of the past. We are proposing a 17 percent increase in the procurement accounts. We must sustain this trend to transform an Industrial Age army into an Information Age army.

Today's Army leads the way in acquisition reform. By continuously evaluating the way it does business to ensure our soldiers always have access to affordable and ef-

fective leading edge technology in equipment and service, the Army has achieved considerable success with acquisition reform.

For example, we have launched a major effort, called Modernization through Spares, to insert commercial technologies and reduce the cost of spare parts. Additionally, in attaining savings through credit card purchases, the Army was the first federal agency to exceed one million transactions for micro-purchases in fiscal year 1996, and broke that record with 2.4 million transactions in fiscal year 1997. By aggressively implementing better business practices at all levels, the Army is taking advantage of the Revolution in Business Affairs to help fund modernization, readiness, and quality of life programs. But, we must continue to emphasize the benefits of acquisition reform.

We must also continue to work to remove the structural barriers to achieving the most efficient Army possible. We are working hard to ensure that we have one Army—not an operational army, a support army, and an acquisition army. As we continue down this road, I ask for your support in these and other initiatives we are pursuing. It is imperative that we look at innovative ways to reduce overall support costs, improve spare parts availability, maintain weapon system readiness rates, and provide funds for modernization. In particular, I would mention the Prime Vendor Support program (PVS). This is an initiative whereby prime contractors could assume full responsibility for total system performance while achieving savings in operations and support costs and modernizing the weapon system through the integration of contemporary spare parts. At the same time, these innovative concepts must be effective in peacetime, during contingency operations, and in war. We strongly believe that PVS is an initiative that will leverage the best commercial practices that industry has to offer, maximize rapid distribution, and reduce stock levels while maintaining readiness. We are confident that it holds the potential for significant savings for our Army. In the next few months, we will finalize the details for the Apache pilot program as well as the M109 fleet management pilot program, and then make the final decisions required to move forward.

A New Method of Change

The current process of change is called Force XXI and is designed to reconceptualize and redesign the Army at all echelons, from the factory to the foxhole, in order to fully exploit the capabilities of Information Age technologies. The product resulting from that effort will be Army XXI, currently scheduled to be fielded from 2000–2010. Army XXI will be digitized and capable of achieving Information Dominance over any adversary.

The Force XXI process is a journey, not a destination, however, and Army XXI is only one step along the way. As a result of the overwhelming success of Desert Storm, many nations are seeking to obtain and apply modern technology to their military forces. The result will likely be that the next battlefield we face will be more challenging than ever before. The Army After Next Project (AAN) is designed to explore the uncertain world of the deeper future and help ensure that land component operations in 2015 and beyond are fully integrated with those of our joint and multinational partners. The AAN long-term focus is on obtaining the leap-ahead technologies required for the Army to achieve Full Spectrum Dominance during the military operations of the future.

Information Dominance is central to achieving the Full Spectrum Dominance described in Joint Vision 2010. Recent Advanced Warfighting Experiments (AWE's) have revealed that secure information technology can create an order of magnitude difference in combat effectiveness. Information Dominance, when coupled with revised leader development and training programs, will give the Army the mental agility required to exploit opportunities on the increasingly complex and dynamic battlefields of the future.

Digitization is the means by which we will achieve Information Dominance and, as such, is the key to the ultimate realization of Full Spectrum Dominance. Digitization is an integral part of modernizing for the Information Age. Digitization spans the entire Army modernization strategy. It involves the use of modern communications capabilities and computers to enable commanders, planners, and soldiers to rapidly acquire and share information. The resulting improved awareness will revolutionize the conduct and tempo of all phases of future combat operations.

The cornerstone of this effort is our goal of fielding a digitized corps by 2004, with an intermediate objective of a digitized division by 2000. Remaining Active Component divisions and selected Reserve Component combat, combat support, and combat service support units will be digitized by 2010.

The Digitization process involves upgrading or modifying some existing systems; adding to or “appliquing” a capability to others; and ensuring future systems have information technologies built in as an integral part of the system when appro-

priate. All these capabilities are being developed in compliance with a common set of standards to ensure interoperability and enhance efficiency through software reuse.

The Task Force XXI AWE, completed this past Spring at the National Training Center, focused on operations at the brigade level and below. Friendly situational awareness, a top priority for this experiment, was a great success. In preparation for the experiment, the Army installed and integrated over 4,000 pieces of digital equipment on nearly 1,000 vehicles of all types. The AWE successfully experimented with the Tactical Internet, and provided insights that will guide investment decisions in hardware and software technologies. In November 1997, the Army conducted the Division XXI AWE which focused on division and corps operations using Army Tactical Command and Control Systems. Results will help refine the architecture for the first digitized division (the 4th Infantry Division), which will be fielded in fiscal year 2000.

The Army continues to pursue many ongoing efforts with the other services and allies to ensure interoperability and seamless communications throughout the battlespace. Additionally, the common, minimal set of information technology standards developed by the Army on behalf of digitization is the basis of the Joint Technical Architecture that is now mandated for use throughout the Department of Defense.

Protecting Information

What we are seeking is information dominance. At the same time, however, we are not alone in our efforts to harness the power of the Information Age. There are many threats to our ability to gather, process, and disseminate information, some of them have only just begun to emerge. Protecting our information will be key to the success of future operations.

Our Advanced Warfighting Experiments have demonstrated that the computers and other information systems we are developing worked well at all echelons and provided continuous, enhanced situational awareness. We are able to detect, identify, and track hostile activity in sufficient time to target it with lethal weapons or maneuver against or around it as appropriate. Likewise, we are able to locate, identify, and track friendly forces.

What we have learned has gone a long way toward answering a soldier's three most important questions: Where am I? Where are my team members? Where is the enemy? That information is powerful and our ability to gather, process, and disseminate more of it than ever before has made a major difference in our conduct of operations.

As we look to the future, however, we know that to be successful, we must also have information superiority: the capability to collect, process, and disseminate information while exploiting or denying an adversary's ability to do the same. In all our developmental and experimental efforts, we are conducting appropriate "red team" efforts as part of a holistic approach to organizational, materiel, and procedural solutions needed to protect our information from the full array of potential threats.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION—FISCAL YEAR 1999 PRESIDENT'S BUDGET

[In millions of dollars]

Category	Fiscal year—						
	1997	1998	1999	2000	2001	2002	2003
Basic Research	175	180	201	211	216	221	227
Applied Research	542	654	511	526	541	557	569
Adv Tech Dev	654	657	484	556	515	480	475
Dem/Val	540	563	466	449	330	203	248
Eng Manufacturing Dev	1,146	1,162	1,269	1,361	1,728	1,993	1,801
Management Support	1,145	1,129	1,076	1,054	1,001	953	942
Operational Sys Dev	716	679	773	596	569	479	623
Total RDTE	4,916	5,025	4,781	4,754	4,900	4,887	4,885

The fiscal year 1999 RDTE request provides funding for Science and Technology efforts that are focused on affordable options to achieve capabilities envisioned for Force XXI, Army Vision 2010, and Army After Next. This will ensure the timely de-

velopment and transition of technology into weapon systems and system upgrades and to explore alternative concepts in future global, capabilities-based warfighting. The Army S&T program emphasizes technology insertion via upgrades to existing platforms, support of Joint Chiefs of Staff future warfighting capabilities and Force XXI AWE's, early reduction of risk in material development programs and management through the Army Science and Technology Master Plan.

It also provides for the continued funding for the Force XXI Initiatives begun in fiscal year 1997, a program that uses the Warfighting Rapid Acquisition Program (WRAP) as a vehicle to jump start technology and put proven technology into the hands of soldiers, while achieving significant time and dollar efficiencies.

The fiscal year 1999 RDTE budget provides for the continued development of major programs such as Comanche, Crusader, Follow-on to TOW, Brilliant Anti-Armor Submunitions (BAT) and Army Battlefield Communications System. The budget does not provide for any major system new starts.

PROCUREMENT APPROPRIATIONS—FISCAL YEAR 1999 PRESIDENT'S BUDGET

[In millions of dollars]

Appropriation	Fiscal year—						
	1997	1998	1999	2000	2001	2002	2003
Aircraft	1,329	1,323	1,325	1,372	1,456	2,007	2,074
Missiles	1,003	744	1,206	1,432	1,414	1,488	1,285
Weapons/Tracked Cbt Veh	1,419	1,291	1,434	1,566	1,615	1,794	1,911
Ammunition	1,143	1,020	1,009	1,157	1,232	1,495	1,664
Other Procurement	3,178	2,563	3,199	3,602	4,204	4,456	5,327
Total	8,071	6,941	8,173	9,128	10,022	11,239	12,260

The fiscal year 1999 President's budget request for the procurement appropriations is \$1.2 billion higher than the amount appropriated in fiscal year 1998. This increase reflects the Army's continued emphasis on modernization for the Total Army. The budget request increases funding for Reserve Component modernization, specifically in Air Defense, Combat Service Support Systems and Blackhawks (for the Army National Guard). Critical modernization programs such as Longbow Apache, Abrams Tank Upgrade, Family of Medium Tactical Vehicles, Bradley Upgrades, ATACMS and first year funding for the BAT are also funded.

The digitization of the force is another key investment focus with increased funding for the Army Battle Command System, which encompasses Command and Control Systems and the Warfighters Internet. These systems are key to the Army's ability to digitize the first division in fiscal year 2000.

The ammunition program consists of Training Ammunition, War Reserve Modernization Ammunition, Ammunition Industrial Base Funding to include the Armament Retooling and Manufacturing Support (ARM's) initiative, and Ammunition Demilitarization.

The President's budget funds Training Ammunition to the C-1 Readiness level. It buys four of the Army's ammunition modernization priorities, funds a strong ammunition demilitarization program and provides modest funding for Ammunition Industrial Base including the continuation of ARM's through the end of fiscal year 1999. It provides partial funding for the continuation of depleted uranium production. The President's budget supplies sufficient ammunition for the Army to conduct two major theater wars with moderate risk relying on substitutes. It meets defense guidance on the Industrial Base for replenishment and environmental concerns with moderate risk. It provides a small fund for continued ARMS incentives, and a continuation of the loan guarantee program. The budget does not provide for new production of any new major systems.

Civilian Drawdown

The Army's civilian workforce of 243,000 has been reduced about 160,000 people since the drawdown began in fiscal year 1989—a 40 percent decrease. To shape the Army of the future, current plans are to further reduce manpower to about 237,000 by the end of fiscal year 1999 and to about 218,000 in fiscal year 2003. Overall this is a reduction of 46 percent since fiscal year 1989. The civilian manpower reductions are attributed to functional transfers to agencies outside of the Army, force struc-

ture downsizing, base closures and consolidations, reengineering and efficiency studies, privatization, and funded workload and affordability decisions.

We are committed to making these changes to the size and composition of the work force, while maintaining the capability to adequately support and sustain a ready force. Current congressional guidance is to manage the civilian work force based on funded work load and we support that guidance. Initiatives are underway to correct some problems in our manpower requirement determination process, and they will help us to better size our work force as well as keep down the costs of labor. We need continued congressional support to provide flexibility to manage the work force throughout the remaining phase of the drawdown.

Human Relations Environment

The cornerstone of the Army's human relations philosophy is that every soldier is entitled to be treated with dignity and respect, without regard to that soldier's gender or race. The Army's commitment to equality is a matter of historical record in which we take great pride and which we are determined to uphold.

The Army is dedicated to improving its human relations environment and understands the impact of the human dimension on combat readiness. The Army continues to work hard to reduce sexual harassment, sexual discrimination, and sexual misconduct. In response to incidents in the Fall of 1996, Army leadership directed a thorough assessment of the Army's human relations environment.

Secretary West initiated two critical self-studies. First, he formed the Senior Review Panel, with a charter to examine the human relations environment Army-wide, placing emphasis on sexual harassment. Second, he directed the Inspector General to conduct a special inspection of equal opportunity and sexual misconduct policies and procedures at initial entry training organizations. This was an honest look, and we learned a great deal about ourselves.

The Army's Human Relations Action Plan addresses the findings and recommendations of both reports in order to make the Army a better place for soldiers without weakening standards. The Action Plan contains ongoing actions and actions to be taken with dates for completion. Both the Chief of Staff and I receive periodic updates on the progress of the Action Plan. Commanders in the field, as well as senior Army leaders, have already initiated many of the needed corrections.

We have begun to restore soldier's trust and confidence in the Army's Equal Opportunity system as a means to improving our overall human relations environment. The Army remains ever vigilant in its quest to maintain fair and equitable treatment for soldiers while being well aware that without this treatment, readiness ultimately suffers.

Quality of Life

We must take care of our soldiers and their families. An "iron logic" connects quality of life, quality installations, retention, and readiness. To recruit and retain quality people, we must provide challenging careers and a quality of life comparable to the society they are pledged to defend. Our men and women know that they are well trained. They have the tools to put that training into practice. And, most importantly, they believe that their efforts around the world are making a difference. Our soldiers sacrifice greatly to serve their country. It is our responsibility to ensure that the Nation adequately recognizes that sacrifice. Fair pay and compensation, a stable retirement system, accessible quality health care, a predictable duty and service environment, and an improved military living environment remain top priorities. We must adequately fund community and family support programs and continue our progress toward meeting morale, welfare, and recreation funding standards. As we further integrate the Reserve Component (RC), integration and funding of RC quality of life programs becomes equally critical to overall readiness.

Adequate compensation is a fundamental requirement for maintaining an all-volunteer force. This year's budget includes a request for a 3.1 percent pay raise for our military and civilian personnel, as allowed by law. Quality housing is another important element of the quality of life for our soldiers. The fiscal year 1999 President's budget contains \$307 million for the Whole Barracks Renewal Program. Construction of these new barracks will improve the living conditions of 2,316 single soldiers in the United States, as well as 1,278 living overseas. The budget also provides \$68.5 million for 506 new family housing units, and \$28.6 million to provide four Whole Neighborhood renovation projects containing an additional 514 units.

Through the Capital Venture Initiative, the Army is pursuing privatization initiatives to increase housing availability and to improve housing conditions. This initiative will convey current housing units to private entities that will, in turn, revitalize the housing for our Army families. The first of these initiatives is scheduled to be awarded early this year at Fort Carson, Colorado. Our plan is to use these authori-

ties wherever feasible and economical in the U.S. We are applying lessons learned from the Fort Carson project in the development of 26 additional family housing privatization projects.

The Army's soldier, family, and community support programs are essential for an Army facing the demanding OPTEMPO and PERSTEMPO requirements of the current strategic environment. In fiscal year 1999, we have requested \$388.4 million to support these customer driven programs that provide integrated, major educational, preventive, and support services that directly affect soldier readiness and foster self-reliance. They assist soldiers and families with transition to the Army, frequent relocation, deployments and other soldier absences, as well as life within the military community. Sports, fitness, recreation, library, leisure, and business programs foster mission readiness, offer opportunities for social interaction, support professional and personal development, relieve stress, and provide ways for deployed soldiers to fill off-duty hours. Family support, child, and youth programs provide options and resources to reduce the conflict between soldiers' personal and family responsibilities and their mission requirements.

THE WAY AHEAD

The Army Vision

Our Vision for today and tomorrow is straightforward: The world's best army, a full spectrum force—trained and ready for victory. A Total Force of quality soldiers and civilians is:

- A values-based organization.
- An integral part of the Joint Team.
- Equipped with the most modern weapons and equipment the Nation can provide.
- Able to respond to our Nation's needs.
- Changing to meet the challenges of today, tomorrow, and the 21st century.

The Total Force

Our best judgment is that the National Security Strategy and the National Military Strategy, with their integrated approach to Shaping the international environment, Responding to crises, and Preparing now for an uncertain future, will protect the Nation and its interests, and promote a peace that benefits America and all like-minded nations.

To execute this strategy, the Army requires forces of sufficient size, depth, flexibility, and combat power to defend the U.S. homeland; maintain effective overseas presence; conduct a wide range of concurrent engagement activities and smaller-scale contingencies, including peace operations; and conduct decisive campaigns against adversaries in two distant, overlapping major theater wars, all in the face of weapons of mass destruction and other asymmetric threats.

That force is a Total Force, an 18 division Army—a force that combines the unique capabilities of its Active and Reserve Components and its civilian employees. All elements of the Total Force must be appropriately resourced, organized, modernized, trained, and integrated.

Active Component—Reserve Component Integration

The Guard and Reserve are important links between the Armed Forces and the American public. Mobilization of the Reserve Component has always been an important indicator of the commitment of national will. Guardsmen and Reservists are not only integrated into war plans, but also provide critical skills in carrying out contingency operations, as well as augmenting and supporting active units during peacetime.

Today, the Reserve Component is fully engaged, providing critical support to the National Military Strategy. Every operation America's Army conducts today is a Total Army effort, involving Active duty personnel, members of the Army National Guard, and Army Reservists working side-by-side to accomplish the mission. We do not see this changing. Approximately 55 percent of the Total Army's combat arms are in the National Guard. Likewise, the Reserve Component contributes over 60 percent of the Combat Support forces and over 70 percent of the Combat Service Support forces to the Total Force.

The Army has and will continue to mobilize Reserve Component units and individuals to provide essential support during contingency operations. For example, we have mobilized more than 500 Reserve Component units and more than 15,000 soldiers in support of Operations Joint Endeavor and Joint Guard. More than 5,000 RC soldiers have augmented or backfilled staffs and units in Germany, Italy, and the United States by providing functional support in the following areas: postal, military police, movement control, logistics, aviation, finance, personnel administra-

tion, and maintenance. More than 7,000 have been deployed directly to Bosnia-Herzegovina to perform a wide variety of missions.

Currently, the Army is working to implement 31 separate initiatives that will integrate components at all levels across the entire spectrum of combat, combat support, and combat service support. Using a phased approach, we are in the process of placing two Active Component division headquarters; one heavy at Fort Riley and one light at Fort Carson, with six enhanced Separate Brigades. This approach will allow the Army to maintain combat capability throughout the transition to a fully integrated warfighting division.

Individual integration into selected Active and Reserve units is also a high priority. The intent is to develop officers with cross component experience as a way of bridging the culture gaps between components. Other ongoing AC/RC initiatives include the conversion of Army National Guard (ARNG) divisional structure from combat to combat support and combat service support structure. This will significantly reduce the shortfall in combat support and combat service support that has been identified as a systemic problem.

Additional new AC/RC initiatives include: increasing the number of composite (multi-component) units which have AC and RC soldiers blended into a cohesive unit; using ARNG Man-Portable Air Defense System teams to support AC Patriot battalions deploying to Southwest Asia; and involving ARNG rotations in support of Able Sentry in Macedonia, as well as the Multinational Force and Observers missions in the Sinai.

The Secretary of the Army is the Executive Agent for implementation of the Nunn-Lugar II program. Emergency first responders in 120 cities across the United States will be trained to respond to the potential use of weapons of mass destruction (WMD). A new initiative in fiscal year 1998 is our plan to resource and employ the Guard and Reserve in an integrated response to domestic terrorism incidents involving WMD. At the request of Secretary Cohen, I formed a Tiger Team of subject matter experts to identify the functional model, forces, funding, and direction required to integrate the Guard and Reserve into WMD response. As a result of these efforts, DOD is requesting \$49.2 million in the fiscal year 1999 budget to begin preparations, including: fielding ten Rapid Assessment and Initial Detection elements; conducting various interagency exercises; and other initiatives. As the Secretary of Defense's Executive Agent for this mission, we will establish a Consequence Management Program Integration Office to manage the effort, take the actions necessary to implement the program in fiscal year 1999, and plan for future program initiatives.

The U.S. Army Reserve (USAR) is testing a program called the Reserve Associate Support Program (RASP) which will attach USAR soldiers to Active Component units upon completion of their initial entry training. After completing the remainder of a two-year Active Duty for Training tour, the USAR soldiers are then returned to their USAR unit. RASP will provide fully trained soldiers in critical skills to high-priority Active Component units and USAR Force Support Package units. A test of RASP will commence with 100 soldiers this year, with the potential to expand to 4,000 soldiers if it is successful.

The USAR is also testing a Proof of Principle at three universities with Reserve Officers Training Corps battalions. This program replaces Active Component officers and NCO's at the battalions with qualified drilling reservists from USAR Troop Program Units. This initiative is intended to maintain effective ROTC instruction while providing potential personnel efficiencies to be reinvested in the Active Component force structure.

These are just a sampling of the 31 initiatives currently underway to enhance the integration of the Total Force. The recently completed Quadrennial Defense Review and subsequent effort by the National Defense Panel have each included several recommendations to strengthen the Total Force. Each effort has reinforced the need for all components of the Total Force to work together in an atmosphere of mutual trust. The foundation of our approach to future operations must rely on Total Army solutions that make the best and most appropriate use of each component's individuals and organizations. We are fully committed to the Secretary of Defense's four principles on Total Force Integration to ensure that each component is properly resourced, structured, and utilized to best support the National Military Strategy. Those principles are:

- Clearly understood responsibility for and ownership of the Total Force by the senior leaders throughout the Total Force.
- Clear and mutual understanding on the mission of each unit—Active, Guard, and Reserve—in service and joint/combined operations, during peace and war.
- Commitment to provide the resources needed to accomplish assigned missions.

—Leadership by senior commanders—Active, Guard, and Reserve—to ensure the readiness of the Total Force.

While much has been done to achieve integration, much more needs to be done in the area of assigning relevant missions to all units. The Army senior leadership will work closely with the leadership of the Army Reserve and the Adjutants General to ensure that units are assigned realistic and relevant missions in support of the National Military Strategy.

With your support, we have made significant progress in many areas, which has resulted in enhancing the capabilities of the Reserve Component. Over time, as the Army has increasingly called upon the Reserve Component for support, its share of the Army budget has increased. Over \$21 billion has been invested in modernization, including cascading equipment, for Reserve Component forces in the last six years. Today, the Reserve Component's share of Army operations and support is the highest it has been since 1962.

We are fully committed to Secretary Cohen's four principles for Total Force Integration. A seamless Total Army is absolutely necessary to meet the Nation's requirement for forces that are effective, efficient, and strategically relevant in today's security environment.

SUMMARY

As America's Army shapes and responds to the world today and prepares for an uncertain future, it will confront many challenges. In the new century, the Army must remain actively engaged, while continuing to change to meet the challenges of an ambiguous world. Balancing readiness, modernization, and quality of life while continuing to meet the needs of the Nation poses the greatest challenge to Army leaders today.

The Total Army is going forward together—one team of Active, National Guard, and Army Reserve soldiers and civilians—committed to the idea of one fight—an integrated joint force working in concert to provide for the common defense—and working together for one future—a secure America in a safe and prosperous world. To meet all these challenges, the Army must stay focused on some guiding principles that will serve us well today and prepare us for tomorrow.

First, we must always keep our focus on people. Soldiers are what make the Army work. So, soldiers must take care of themselves, take care of their soldiers, and take care of their families. In return, the Nation must take care of her soldiers. The American Army will only be as good as its people. Today, America is asking a great deal from the Total Army team. So, Army leaders at all levels must always make decisions with people foremost in mind.

Second, America's Army must always be strategically relevant to the needs of the Nation. It must continue to be trained and ready to fight and win the Nation's wars while helping to prevent conflicts, shaping the international environment, promoting our national interests abroad, and influencing democratic values around the globe.

Third, we must modernize the Army now for the 21st century. Warfare in the information age requires new weapons, new doctrine, organization, and training. Our modernization program will focus investments on securing the capabilities needed to evolve today's Army into Army XXI and the Army After Next. We are committed to providing the soldier—our most precious resource—with the best chance to prevail quickly and with minimum casualties on the battlefields of today and tomorrow.

Fourth, the Army must always be a disciplined force where men and women from all races, religions, and backgrounds serve together with dignity and respect. We must be an Army of soldiers and civilians who exemplify the values and character of the Nation. An Army of citizens who are also soldiers, but first and always Americans.

Fifth, our Army must be a Total Force where each component—the Active force, Army National Guard, and Army Reserve—contributes to a seamless team. Our leaders must work together and trust each other and seek to understand the strengths that each component provides the Nation. Together, we must tirelessly work to leverage the capabilities of all the components into one Total Force for America.

Sixth, our Army must be a full partner in the Nation's joint military force. A combined team where each service provides complementary capabilities in support of the National Military Strategy.

As the Acting Secretary of the Army, I assure you that the Army senior leadership is committed to following these principles as we lead the Army into the 21st century. Leadership, of course, is the key to achieving our goals. Our leaders must, and will, lead. We will take care of people, ensuring that their needs are met. We

will embrace and promote innovation while continuing to maintain the warrior ethic and the culture and traditions of our Army.

Training will become even more important as we transition to Information Age warfare and deal with the threats, challenges, and uncertainties of an increasingly ambiguous world. We must continue to train to standard, concentrating on warfighting skills, while preparing soldiers and units for operations across the spectrum of conflict.

Managing the Army's budget is another key to achieving our goals. While the fiscal year 1999 budget is sound, we must continue to balance our resources to meet today's challenges while preparing for tomorrow's. The Nation demands that we be good stewards of the limited resources we are provided. We are committed to carefully determining requirements and reengineering our organizations and processes to achieve the savings necessary to finance future needs. As Secretary Cohen has said, a revolution in business affairs is necessary and will lead to a more efficient Army, focused on our core military competencies, and operating with reduced overhead and support costs.

The Army has made every effort to be as efficient and as effective as possible. We have programmed \$10.5 billion in efficiencies over the Future Years Defense Program, with \$1.3 billion of that programmed in fiscal year 1999. This approach assumes a degree of risk, which we will carefully manage.

CONCLUSION

Strategically relevant and cost effective at less than 25 percent of the Department of Defense budget, the Army is America's force of decision. The fiscal year 1999 budget reflects the Army's commitment to our Nation. Our soldiers are proud to carry out that commitment, which began even before we were a Nation and has led America to a position as the dominant leader of the community of nations. As an Army, we thank this committee for your support in the past and look to you for continued wisdom, guidance, and support as we fulfill our commitment to the Nation. With America's sons and daughters always at the forefront of our efforts, I am confident that we will make the decisions today that will enable continued success tomorrow.

Senator STEVENS. Thank you very much, Mr. Secretary.
General Reimer.

STATEMENT OF GEN. DENNIS J. REIMER

General REIMER. Mr. Chairman, distinguished members of the committee, I am delighted to be here and appear before this committee. I have a prepared statement which I would ask be included for the record, and I would just like to make a few remarks.

First of all, I am delighted to be able to represent all the soldiers, the active and Reserve component soldiers, in the U.S. Army, and on behalf of them, I say thank you for your efforts in getting the supplemental for us in 1998. That has made a big difference. You have led the charge in this particular area, and I am deeply appreciative, as are they.

I would like to talk a little bit about the 1999 budget and put it in perspective of the overall Army plan. If you go back to 1991 to 1997, that was a drawdown period for the Army. We took out over 600,000 people, active and Reserve component soldiers and Army civilians, and we closed over 700 bases worldwide, and in doing that, we carried a risk in future readiness. We used the modernization account to help take care of our people. That was the right thing to do, and we knew that at the end of that drawdown period we had to move more money into the modernization account.

The 1998 budget, which you have appropriated and is out in the field now, reflects the transition year, and the 1999 budget, which we have submitted to you, continues that change. It continues the change that Senator Inouye talked about, a very fundamental

change to the U.S. Army, but at the same time, it allows us to keep units trained and ready.

I want to talk a little bit about the specifics of that particular budget. That budget increases the investment account from 21 percent in 1998 to 22 percent. It keeps our major programs, the Comanche and the Crusader, on track. Those are really the only new programs that we have. It keeps the effort in digitization, which leads us to a new organization, on track, and so it really reflects what I was talking about in terms of modernizing for the future. It retains a balance between near and future readiness.

I have been involved with the Army budget process—as either the Vice Chief of Staff, the Forces Command Commander, or now, as the Chief of Staff—since 1991. This is the most finely balanced budget that we have submitted. It really reflects our efforts to move money from current readiness to future readiness, and that is pretty difficult when you are facing 15 years of declining buying power.

There is no magic about it. We have relied heavily on efficiencies, and we have taken some force structure end strength cuts in order to do that. That is the only way we had of making sure that we brought the modernization account up and allowing us to address that window of vulnerability that we think we will experience in the 21st century if we do not do that.

This budget, I think, also reflects the Total Army perspective. Fifty-four percent of the U.S. Army is in the Reserve component. The percentage of total obligation authority [TOA] going to the Reserve component in 1999 is 3 percent higher than it was in 1989 as a percentage of Army TOA.

Now, I would also tell you that it is higher than what you appropriated in 1998. We did the best we could, but at the same time the Reserve components will tell you that they have 962 million dollars' worth of unfunded requirements, and that is true, but again, as I said, it is a very finely balanced budget.

The budget allows us to continue the momentum of change. We have programmed a digitized division by 2000. That is the division at Fort Hood that has gone through the advanced war-fighting experiment. That is on track. That will lead to a new corps by 2004.

The Army after next wargame that we conduct at Carlisle each year has become more robust, and it helped drive science technology investment, our research, development, and acquisition [RDA] program, and I think it is really doing what we wanted it to do.

While the Army will fundamentally change from the cold war Army in the 1980's to a different type of Army in the 21st century, one thing that will not change are those quality soldiers we have. We owe them a predictable and adequate quality of life, and that is what we have asked in this particular budget.

We emphasize four things which have been our priorities from the very start: adequate pay for them, adequate medical benefits, decent housing, and a retirement and benefits system that is solid and does not keep getting eroded over time.

PREPARED STATEMENT

And on their behalf, let me say thank you for your support—your support that you show with your appropriations and also your support with your visits. I know members of this committee who traveled through six different countries in 4 or 5 days, and you visited our soldiers, and I can just tell you that means an awful lot to them.

So I thank you, Mr. Chairman and the members of the committee, for your support. I look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF GEN. DENNIS J. REIMER

Mr. Chairman and members of the Committee. Thank you for this opportunity to speak to you about America's Army and the magnificent soldiers who proudly serve our Nation.

PATH TO THE FUTURE

The best way to understand the state of today's Army is to envision our path to the future. This path is marked by signposts corresponding to the three pillars of our national military strategy: respond, shape, and prepare. To be ready to "respond," we focus on ensuring near-term readiness so that our forces are ready to react to requirements worldwide. We also "shape" the global environment, increasing international understanding and cooperation, diminishing threats, and securing America's place in a free and prosperous world. Finally, we "prepare" for the future, transforming the Army so that our soldiers will be ready for the national security tasks the Nation will face in the next century. In my testimony, I will address our progress in each of these areas. The assessment I offer today is cautiously optimistic. I am convinced today's Army is trained and ready. I am equally optimistic about the course we have laid out for the future. However, we do not live in a risk-free environment and in order to balance all the pillars of the National Military Strategy we have to take risks. I believe these risks to be prudent. With continued congressional support, I am confident that when America's soldiers are needed, they will always be there.

A STARTING POINT

Every path has a beginning. The Army's path to success starts with the support of the American people represented by your concern and commitment. I want to personally thank you for your continued support to the American soldier. Coincidentally, exactly 200 years ago we faced a series of difficult decisions not too unlike those we see today. Our new republic was in an era of transition, facing a future filled with ambiguity, potential problems, and unprecedented opportunities. The Spring of 1798 saw new and unexpected threats. President John Adams could not see the future, but he knew that Americans lived in a dangerous world, and he understood well the cost of unpreparedness. The President turned to Congress for support in strengthening the armed forces, and congressional leaders responded to the call. They reestablished the United States Marine Corps under the newly created Navy Department, added companies to the Army's regular regiments, and enhanced the federal government's ability to call on the militia to supplement national defense. These were difficult decisions made for the common good, putting the needs of the new nation above regional issues and a thousand other concerns. Two centuries later, our nation's leaders are no less vigilant. Our country has a remarkable history, a powerful legacy of commitment to the common defense. Many of you have recently traveled around the world, meeting, talking, and listening to America's soldiers. They were deeply appreciative of your concern and interest. On behalf of all of them—men and women of the Active force, the Army National Guard, and the United States Army Reserve—I want to offer you their sincere appreciation and thanks.

A TURNING POINT

There is no question that since the end of the Cold War, the Army has undergone an unprecedented transition. Today, we are at the turning point in creating a very different army. We have become a globally engaged force, handling a broad range of military missions. The need for land power during peacetime is greater than ever.

The Army has participated in 28 of the 32 major post-Cold War deployments by U.S. forces, providing over 60 percent of the personnel involved in those operations. In 1997, on average, the Army deployed about 31,000 Active, Reserve and National Guard soldiers away from their home stations and families, spread across 70 countries around the world. Backing them up were approximately another 62,000 men and women preparing to deploy, deploying, or recovering from operations. During the year, a significant portion of the Army's soldiers were on the move, supporting active operational commitments, while others were training and preparing for the full spectrum of military operations, from conventional combat to teaching chemical and biological detection and defense to civilian agencies. The requirements of America's post-Cold War defense have made the U.S. Army busier than ever.

All of the activity of the past few years has taken place in conjunction with one of the most significant force reductions in our Nation's history. We have taken more than 630,000 active and reserve component soldiers and civilian employees out of the force. We have closed over 700 bases. In Europe, for example, we reduced the force from over 215,000 soldiers to about 65,000. The total drawdown in Europe would be equivalent to closing 12 major installations in the United States. While these reductions took place, the number of Army deployments has increased by more than 300 percent. Despite the magnitude of our efforts and the everyday pressures and stresses on the force, our soldiers continue to perform magnificently. They have the willingness to take prudent risk, the boldness to seize the initiative, and the professionalism to do their absolute best—trademarks of the American Army for 223 years.

As you do, I recognize that the service of our soldiers has not come without cost. We are not perfect. Many are concerned whether the Army can maintain the tremendous progress we have made since the end of the Cold War. Some worry that a "zero defects" mentality might resurrect itself and that opportunities for assignments and promotion will diminish. Others fear a return to what some refer to as "the hollow army," where requirements far outstripped resources. Some are concerned that the high pace of operations will detract from training to the point that units will lose their warfighting edge. These concerns are understandable and bear watching because they highlight an important constant that we can never compromise—at its core, the Army is about taking care of people—because they are and always will be our greatest asset. In my remarks, I will address what we are doing and what needs to be done to ensure our soldiers are prepared to go in harm's way today and at every point along the path to the future.

RESPONDING TO OUR NATION'S NEEDS—ENSURING READINESS THROUGH RECRUITING, RETENTION, AND REALISTIC TRAINING

Responding to the needs of Americans at home and abroad has always been a tenet of our military strategy and the Army's time-honored task. Every American who has watched an Army National Guard truck deliver a load of sand bags to help shore-up a levy holding back a raging flood, or an Army convoy plow through an ice storm to deliver lifesaving supplies, understands what we mean by the "respond" pillar of the national military strategy. In like manner, people across the earth—from a Korean War veteran in Yongsan to an impressionable young Hungarian meeting his first American at the Army headquarters in Kaposvar—have experienced first hand the meaning of the presence of U.S. ground forces and America's resolve in responding to crisis worldwide.

Recruiting

Supporting the "respond" pillar of the national military strategy requires above all else, a trained and ready force. Meeting this responsibility starts with recruiting high quality soldiers. The Army continues to enjoy success in attracting and retaining high quality recruits, but enticing young people to serve, in the numbers that we need, is becoming increasingly difficult. As you know, history shows that the difficulty of recruiting increases as the jobless rate declines, and unemployment figures have been at their lowest point in a decade. Nevertheless, the Army is blessed with an outstanding corps of professional recruiters who have done a tremendous job of bringing young men and women into the force. We fully expect to accomplish our recruiting mission this year. The importance of this mission continues to increase as the drawdown concludes and we begin to replace losses on a one-for-one basis. The Army's recruiting effort in the next few years is crucial to maintaining readiness. In particular, we have placed increased emphasis on recruiting in critical combat military occupational specialties. This should give commanders confidence that they will continue to have high quality soldiers, in sufficient numbers, to fill their ranks.

Every soldier who joins the Army is an important and a valued member of the team. As you know, in the recent Secretary of the Army's Senior Review Panel Report and the Report of the Inspector General, the Army took a hard look at what needs to be done to ensure each recruit is treated with proper dignity and respect. This work resulted in the Army's Human Relations Action Plan. The plan fully recognizes that initial entry training (IET) is a critical step in the "soldierization" process, and we are aggressively implementing the recommendations of both reports. We are expanding Basic Combat Training (BCT) by a week to ensure every recruit is thoroughly grounded in Army values, teamwork, and discipline. The changes we are making in the training base are not about lowering standards. In fact, we are working to make IET even more challenging and physically demanding, ensuring we produce highly motivated, confident young men and women graduates.

At the direction of the Secretary of Defense, we have reviewed the report by the Federal Advisory Committee on Gender-Integrated Training and Related Issues (the Kassebaum-Baker Report). Many of the committee report's findings mirror the conclusions in the Secretary of the Army's Senior Review Panel and the Report of the Inspector General. These concerns are being addressed by the initiatives outlined in the Army's Human Relations Action Plan. The committee also makes additional recommendations that we carefully considered. I can assure you my response to the Secretary of Defense focused on three objectives: (1) enforcing the highest standards in discipline and training; (2) ensuring every soldier lives and trains in a safe and secure environment where they are treated with dignity and respect; and (3) building the cohesion, confidence, and teamwork that will prepare soldiers for success in their units. We are committed to following an approach to training that will provide the most efficient and effective military force, while realizing the full potential of the young Americans who serve our country.

Retention

Ensuring the Army's near-term readiness and America's ability to respond to any crisis worldwide also requires retaining the world's best soldiers. The increased frequency of deployments combined with concerns over inadequate pay for our enlisted personnel, benefits, health care, and retirement have the potential to increase uncertainty and adversely affect retention. I think the very high reenlistment rates among units that have conducted the most frequent operational deployments under harsh and dangerous conditions say a lot about the professionalism of American soldiers. Our men and women know that they are well trained. They have the tools to put that training into practice. Most important, they believe their effort and sacrifice is making a difference, saving lives, protecting property, and contributing to freedom and prosperity in places where these words had no meaning until an American soldier stood behind them. Our soldiers sacrifice a great deal to serve their country. It is our obligation to provide them and their families with fair and adequate pay, quality medical care, safe and affordable housing, and stable retirement benefits. Maintaining a high quality of life for both married and single soldiers remains a top priority for the Army.

Realistic Training

Near-term readiness is also about providing realistic and relevant training. The Army's senior leadership has an obligation to give leaders and soldiers a reasonable expectation that they'll have the time and resources they need to train. "Slowing down the train" is an important part of this effort. More training is not always better training. I do not think we can do more with less—but we must get more out of what we have got. Fewer and higher quality training events are more important than ensuring every moment on the training schedule is chock full of activity. For starters, as you know the Joint Chiefs of Staff have committed to reducing joint training and exercise requirements by 25 percent. This reduction is designed to eliminate the least effective training events and should help to reduce the burden on commanders who, all too frequently, meet themselves coming and going, racing from one training exercise to the next.

We are also fine-tuning the Army's training programs. In the coming year we will relook how we train at the Combat Training Centers (CTC's). The CTC's remain the "crown jewels" of our training system, and we need to begin to look at expanding their role in training for the asymmetrical threats we anticipate our soldiers will face in the years ahead. This training will not dilute or detract from our warfighting focus, but it will place additional emphasis on emerging threats, such as urban combat, the proliferation of weapons of mass destruction, and the greater intermingling of combatants and noncombatants on the battlefield. The sophistication of the CTC's has increased by "an order of magnitude" since the end of the Cold War, but continues to be focused on tough, realistic high intensity combat. Our efforts at the CTC's

will be paired with an increased, more cost effective and balanced use of live training, distance learning and simulations at home station. We have made tremendous gains in learning how to mix new training technologies with traditional field training. As a result of this effort, I think we will be adequately positioned to provide a support base for realistic, relevant training in the years ahead.

Realistic, relevant training remains the glue holding the force together. If I have one concern, it is that commanders at major commands and installations who face tighter budgets and diminished resources have fewer and fewer options in managing the assets at their command. We need to empower these creative, innovative, and highly competent leaders. In that light, we are looking at programmatic solutions and the potential of proposing revisions to legislation to provide commanders some relief and flexibility in how they structure and support their missions. I ask for your consideration and support with these efforts.

Responding to the diverse and often unforeseen mission requirements of the post-Cold War world requires disciplined, well-trained and ready forces. I believe the steps I have outlined here will ensure that we will continue to have those forces as we walk the path to the future.

SHAPING THE INTERNATIONAL ENVIRONMENT—WITH TOTAL ARMY SOLUTIONS

In recent years, the Army's shaping responsibilities have become the most demanding aspect of our mission. The Army has truly become America's premier shaping force—from our forward-presence forces in Korea and Europe; to stability operations in Bosnia, the former Yugoslav Republic of Macedonia, Haiti, Ecuador, Peru and the Sinai; to international programs, such as the Partnership for Peace exercises and military-to-military contacts with friends and allies around the world. In addition, visits with my counterparts in Asia, South America, and Central Europe lead me to believe strongly that there is more the Army could and should do, particularly as part of an interagency approach, to promote regional stability, provide strategic early warning of global change, and mitigate threats before they become acute. The Army's utility in the post-Cold War world is vast, and we are being increasingly called upon to work with the other instruments of national power to help shape the international environment.

Managing the high operational and personnel tempo required to sustain our efforts represents one of the most significant challenges we will face in the year ahead. Ongoing stability operations in Bosnia are a case in point. Recognizing the need for an extended commitment in this region, we are now looking at ways to avoid consecutive tours. Our soldiers remain committed to the mission and are proud of the fact that they have saved thousands of lives and mitigated human suffering through their efforts. We are, however, beginning to see soldiers conducting "back to back" deployments. To lessen the burden of high tempo operations, we must develop new, creative operational and personnel policies specifically tailored to recognize the reality of conducting business in the post-Cold War world.

The foundation of our approach to future operations must rely on Total Army solutions that make the best and most appropriate use of a mix of active, United States Army Reserve, and Army National Guard soldiers. As you know, 54 percent of the Army's force structure is in the Guard and Reserve. Recent experience clearly demonstrates that any significant deployment requires a robust mix of component capabilities. About one-quarter of our force in Bosnia, for example, consists of soldiers from the Army National Guard and United States Army Reserve, while other soldiers from the reserve components have deployed to Europe to "backfill" active duty soldiers serving in the Stabilization Force. Providing sustained support to shaping activities across the globe, while continuing to meet the requirements of the other two pillars of the national military strategy, requires Total Army solutions.

We are using the four principles outlined by the Secretary of Defense in his recent letter on Total Force Integration to focus our efforts on ensuring that each component is properly resourced, structured, and assigned missions to support our Nation's strategy. Let me briefly outline here the principles and some of the key initiatives we have undertaken.

The first principle highlights responsibility. We recognize that responsibility for the Total Army can only be taken through energetic leadership and effective communications. The Army has moved to improve communications. Our Reserve Component Chiefs presented their budget issues personally to the Defense Resources Board during the fiscal year 1999 budget preparation process. They are more frequently and routinely in my office and others to ensure there are no filters. I have had several meetings in small groups of state Adjutant Generals. The Secretary of the Army has established an Army Forum on Integration of the Reserve and Active Components to ensure Army leadership involvement in Total Army integration

issues. The Secretary has placed renewed emphasis on our Army Reserve Forces Policy Committee, composed of Active, Guard, and Reserve general officers. The Vice Chief of Staff has reenergized the Reserve Component Coordination Council to address tough policy and resourcing issues.

The second principle outlined by the Secretary of Defense relates to the relevance of missions. This principle recognizes the importance of establishing clear and mutually understood missions for each unit. We believe missioning all units is essential because it establishes the purpose and relevancy of the force. Currently, the Army is converting up to 12 combat brigades of Army National Guard structure to meet the combat support and combat service support requirements identified in the National Military Strategy. There is, however, much more work to be done in the area of assigning relevant missions. Currently, there are eight Army National Guard combat divisions and three separate brigades that have no defined operational mission in the Defense Planning Guidance. Nevertheless, the Army needs these forces to help meet its worldwide commitments for shaping the conditions that will enhance America's global interests and responding to the threats that endanger our peace and security. Our task is to define the role of these forces and embed their missions clearly in the defense planning guidance. An implied task is to gain consensus in the Department of Defense and with Congress that recognizes the need to resource these missions.

One option for enhancing the utility of Reserve Component forces might be to create "dual-capable" units that have the potential to perform traditional combat missions but can also meet a range of requirements. In this area, we are looking at a number of innovative concepts. These concepts range from forming multi-component units that could augment or replace other forces, to giving new missions to the reserve components that they could assume within their existing force structure. One of the most important areas for potential "collateral" missions is the area of homeland defense. These missions could include responsibilities for National Missile Defense, protection of critical infrastructure, and response to domestic emergencies, including the threats of terrorism and weapons of mass destruction. Another potential area of emerging requirements is earmarking commands as "bridging forces" for working with our friends and allies around the world. These forces would serve as important links to facilitate combined and multinational operations. They could form habitual training relationships with allied nations. Training would put special emphasis on the linguistic and liaison capabilities that facilitate multinational operations.

The Army senior leaders must work closely with the Army Reserve leadership, the National Guard Bureau, and the Adjutant Generals to explore these new requirements and initiatives, realistically defining what can and should be done. Our objective must be to get the greatest utility out of every element of the force. At the same time, our goal should be to add predictability and stability to the force. Rapid and unplanned force structure changes place additional stresses on the force, complicating not only resourcing decisions, but long-term professional development of officers and soldiers. Where possible, we must make smart decisions that minimize turmoil while providing the most effective and responsive force possible. This is an achievable goal, but only if we make a concerted effort to complete the missioning process.

The Secretary's third principle recognizes the importance of training, maintaining, and modernizing all the components of the force. In the last few years, the Army, with congressional support, has made significant progress in creating an integrated approach to enhancing the capabilities of the Army National Guard and the United States Army Reserve. New initiatives continue to be developed. The Reserve Associate Support Program, for example, will provide enhanced training for United States Army Reserve soldiers and enhanced readiness for Reserve combat support and combat service support units. After individual entry training, soldiers are attached to an Active Army combat support or combat service support unit for 24 months of active duty. These soldiers then return to their United States Army Reserve unit experienced and fully trained. The Army has approved a pilot program to test the feasibility of the concept. Another significant initiative is the development of the Integrated Division. Over the next year, the Army will create two integrated divisions, placing three Enhanced Separate Brigades under a headquarters commanded by an active duty major general. Upon mobilization, the brigades would deploy as separate forces while the headquarters serves as a center for training follow-on forces.

The Secretary's fourth principle emphasizes that Total Force integration programs must culminate with a commitment to resource forces adequately to accomplish their assigned missions. Despite the Army's declining share of the Department of Defense budget, the Reserve Component's share of the Army budget has risen commensurately with their increased use. The Reserve Component's share as a percentage of the Army's budget is the highest it has been since 1962. In addition, over

the last six years the Army has invested an unprecedented \$21.5 billion in modernizing Reserve Component forces, including cascading equipment. In the future, more can be done to ensure the efficient and appropriate distribution of resources. For example, we are expanding Reserve Component participation in Total Army Analysis (TAA) process, using their expertise to help validate Army warfighting requirements and allocate resources within the Army's budget.

We have also reviewed the successful integration of both the Air Force and the United States Marine Corps. We think there are opportunities for the Army to use the underlying principles of these models. Using them, we are currently refining concepts that provide for even greater integration of the Active, National Guard and Reserve soldiers with emphasis on rounding out units up to the company level. At that level, soldiers and leaders focus on a single system and the challenges of integration are the most manageable.

We are fully committed to managing the Total Army in accordance with the Secretary of Defense's four principles for force integration. We believe that the result will be Total Army solutions that allow the U.S. Army to conduct prolonged, responsive shaping operations today, tomorrow, and into the next century.

PREPARING FOR THE CHALLENGES AHEAD—EXPERIMENTING WITH THE FORCE,
READYING THE LEADERS, REENGINEERING THE INFRASTRUCTURE

As you know, the Army has been preparing for the future through our Force XXI process. The process is designed to spearhead the development of Army XXI, a product-improved force that will see the Army into the next century. Army XXI is primarily concerned with enhancing our current systems with information age technology. In addition, Force XXI is directing our explorations into the Army After Next (AAN). AAN is a future force designed specifically to meet the national security requirements of the 21st century. It will most probably include organizations and systems which do not yet exist. The objective of Force XXI is to synchronize modern equipment, quality people, doctrine, force mix, training, and leader and soldier development—the six Army imperatives—ensuring that the United States Army can conduct a variety of missions in diverse environments, from today until well into the next century.

The centerpiece of the Force XXI process has been a series of Advanced Warfighting Experiments (AWE's) designed to test new systems and operational concepts. In the last year, we conducted two pivotal experiments: the Task Force XXI AWE at the National Training Center, Fort Irwin, California, and the Division AWE at Fort Hood, Texas. These experiments have provided a range of insights into future force design. In particular, they validated the importance of "spiral development," synchronizing the evolution of new systems with organizational, training, leader, soldier, and doctrinal developments. The experiments also reaffirmed the importance of situational awareness and information dominance provided by new technologies. As a result of the AWE's, I am convinced more than ever that developing and fielding digitized divisions and a digitized corps is both feasible and absolutely essential for providing the competent, capable forces we will need in the future. But, the AWE's are more than just technology. They are about spearheading the cultural and institutional change that will prepare the force mentally for the challenges of the next century.

Through the lessons learned from Task Force XXI and Division AWE experimentation and wargaming, we will develop the insights we need in order to make the programmatic decisions to carry us through the year 2005 timeframe. This year we will invest considerable effort in fine tuning our modernization programs for the decade ahead. In particular, we must make sure we have in place the backbone of systems we need to conduct information based operations. We must also focus our Research and Development efforts and pinpoint potential AAN capabilities that can be brought forward and developed now. We cannot yet clearly define the timeline for fielding an AAN force, but it is time to think about taking AAN initiatives out of the theoretical stage and begin looking at potential applications. In particular, future experimentation will focus on the capabilities of light forces and increased joint experimentation. We continue to work closely with the United States Marine Corps on the development of land warfare. Recently, the Air Force and the Army have agreed to begin planning on a cooperative warfighting experiment, which I hope will serve as the precursor for a truly joint experimentation program that will inform and energize a fully integrated joint modernization process.

In addition to the tremendous progress we have made in experimentation, this year marks a significant development in our Force XXI leader development programs. The Officer Personnel Management System (OPMS) XXI and the new Officer Efficiency Report (OER) are important components of our future-oriented programs.

Though these are officer programs, they are intended as a start point for institutionalizing leader programs for the 21st century across the Army. OPMS XXI restructures how active duty officers will be managed, developed, and promoted over a career of service. The changes it introduces are significant. The new system will not only open new opportunities for advancement, command and education, but will better serve the Army's demanding and diverse needs for officer leadership in the 21st century. We developed OPMS XXI hand-in-hand with the revision of the OER system. The new report places special emphasis on ethical attributes and the ability to share and instill those qualities in subordinates. These initiatives, in conjunction with our other Force XXI efforts, are important steps in growing the soldiers and leaders of the next century.

While we continue our Force XXI process, we are reviewing the findings of the recently completed work of the National Defense Panel (NDP). The panel's report has far reaching implications that deserve to be discussed and considered. On the whole, I find the report's findings as a vote of confidence for the path we are on and see nothing that leads me to believe we should significantly alter our path. We must take a prudent course; each pillar in our national strategy carries great importance. We would be ill-advised to assume undue risk in one area for the sake of speeding developments in another. A balanced approach to the future—responding to and deterring threats when they present themselves, shaping the strategic environment to mitigate potential sources of instability before they become acute, and preparing in a disciplined, deliberate manner for the challenges we know we will face ahead—remains our best hope for ensuring Americans peace and prosperity from today to tomorrow.

One finding of the NDP report with which I fully agree is the recommendation to eliminate excess infrastructure. I fully recognize that this is a contentious and controversial issue. Yet, I believe it is one that we as a Nation must address. As you know, the Army has made every effort to be as efficient and effective as possible. The Army has programmed approximately \$10.5 billion in efficiencies over the Future Years Defense Program (FYDP). While we have assumed a degree of risk through the aggressive pursuit of efficiencies, we believe the risk is known, balanced, and manageable. I am concerned, however, that these efficiencies alone will not be enough to balance readiness and modernization in the out years. Reducing excess infrastructure and increasing our flexibility in directing resources and management reform is the surest, most efficient means for improving the value of America's investment in defense.

THE STRATEGIC BALANCE—REQUIREMENTS AND RESOURCES

The Army is not only an invaluable strategic force, it is also cost effective, accounting for less than 25 percent of the Department of Defense budget. We are justifiably proud of the return we provide for the American citizen's investment. Yet as I testified last year, we remain a force under stress. The greatest potential threat to Army readiness is the medium- and long-term impact of an increased operational pace and insufficient modernization funding. By failing to modernize and update our equipment, we put tomorrow's soldiers at risk. I cannot overestimate the risk we take by failing to modernize. The continued threat of weapons proliferation can allow even no-tech nations to field high-tech armies in the flash of an arms deal. Though no nation may be capable of fielding a force that can compete with the United States in a conventional war, any nation can develop a "niche" capability that will cost American lives in a future conflict. At the same time, sacrificing force structure and undercutting quality of life programs are equally unacceptable. Our requirement for ground forces to shape and respond will not diminish. In fact, the changing international environment will probably increase the requirement for the sustained forward presence of our forces and enhanced power projection capabilities. Any option other than maintaining the balance between current readiness and prudent modernization places our ability to effectively implement the national military strategy at undue risk.

As you are aware, as requirements for shaping and responding have expanded in the post-Cold War years, the Army has relied on modernization accounts as the primary bill payer. In fiscal year 1998, Army procurement reached its lowest level since 1960. Quadrennial Defense Review personnel reductions, savings from better business practices, and congressional supplemental appropriations have off-set somewhat the drain on Army modernization, but these initiatives alone are not sufficient to mitigate the risk that the Army will be unprepared for the national security challenges of the future. The proposed fiscal year 1999 Army budget only begins to bring our requirements back into balance. The fiscal year 1999 President's Budget for the Army totals \$64.3 billion. While this is a \$3.3 billion increase over the

fiscal year 1998 budget, it follows 13 years of decline (except for Desert Storm) in real terms and reflects the continued decrease in the Army's percentage of the Department of Defense's budget from 27 percent in fiscal year 1989 to 24.9 percent fiscal year 1999. Implementing the budget requires the Army to assume risk in certain areas and make tough choices to balance requirements and resources.

ONE TEAM, ONE FIGHT, ONE FUTURE—AMERICA'S SOLDIERS

Balancing priorities is never an easy task. Our first congressional leaders learned that lesson well 200 years ago, and very little has changed. There are no easy answers, no silver bullets, no magic solutions. Inside the Army, we have done our best to provide the right balance among readiness, endstrength, modernization, and quality of life. We are one team, United States Army Active, Reserve and National Guard. We believe in one fight conducted by an integrated joint combat force in concert with other federal agencies—providing for the common defense. We are working for one future: a better, more secure place for America in a safer and more prosperous world. At the heart of this commitment are American soldiers, prepared and ready to serve whenever and wherever our nation calls. Supported by these exceptional men and women, we can and will face the tough choices ahead and make the right decisions to safely travel down the path to the years ahead.

[CLERK'S NOTE.—The U.S. Army Posture Statement, Fiscal Year 1999 can be found on the Department's website at <http://www.army.mil>.]

REPROGRAMMING REQUEST

Senator STEVENS. Thank you very much, General.

Mr. Secretary, what is this reprogramming you are going to give us? Is this for 1998?

Mr. WALKER. Yes, sir; we have a reprogramming request pending in the Office of the Secretary of Defense [OSD] which is undergoing OSD review now to ensure readiness funding for our divisions for the rest of the year. In fact, all the services will be having an omnibus reprogramming presented sometime later in June.

Senator STEVENS. I thought we did that in the supplemental.

Mr. WALKER. That only took care of the Bosnia-related cost.

Senator STEVENS. All right. I think we all hear you in terms of this request. We have a \$1.9 billion request for 1999 on an emergency basis. It is very clear that that cannot be approved by the House and I am not sure it will be approved over here in terms of being offbudget, so that is going to exacerbate our problem, and Mr. Cortese and I are just thinking about some of the things we might do to try and deal with that issue. That is as I understand it about an 80-percent outlay, very difficult to handle, to bring that back onbudget.

Mr. WALKER. Mr. Chairman, of that \$1.9 billion, the Army share of that is approximately \$1.4 billion. We cannot absorb that kind of cost in 1999.

To put it into perspective, that is well over one-half of the ground OPTEMPO training cost for the Army during the fiscal year. It would be impossible to absorb, so I do not know how we can pay for it any other way.

Senator STEVENS. When we get this bill to the floor it faces some amendments that will require a mandatory phasedown in deployment, and I am sure when it gets to the House it will face an even more difficult problem in terms of cutting off funds for being in Bosnia altogether. It is a difficult thing to cross the bridge and make it an emergency after 4 years.

I really do not know how we can deal with that, except we will try to be as—I think the best thing is innovative as possible in terms of trying to look at the outlays and to see if there are other

items in the bill that would be truly considered an emergency that we might shift emergency designation there.

I want to confer with you on that.

Mr. WALKER. Thank you.

Senator STEVENS. Let me ask you——

Mr. WALKER. Senator, may I assure you that it will be an emergency for the Army come October 1.

Senator STEVENS. It will be an emergency if you have to take the money out of other accounts, that is true.

Mr. WALKER. Yes, sir.

Senator STEVENS. However, you know, we got that in March, for September being an emergency. It is a tough row to hoe.

YEAR 2000 PROBLEM

Where do you stand in terms of the Army on that, what we call a year 2000 problem? It would seem to me that is a difficult thing too. We are having a hearing here when we get back and we have just allocated \$2.25 billion to our special committee, and that is on an emergency basis now. Are you affected by that, and what can we look forward to? That has to be dealt with before December 31, 1999.

Mr. WALKER. Yes, sir; we have estimated through the year 2000 over \$330 million that we will be spending to deal with the year 2000 problem. It is a serious problem, and we have got to deal with it. Particularly, we have to make sure that our critical systems are taken care of. This is something that is carefully watched in the Army. Both General Reimer and I meet with Lieutenant General Campbell, our Director of Information Systems for Command, Control, Communications and Computers, on a regular basis on this issue, and it is carefully monitored at the Department of Defense. There is a great expense and a great deal of work to be done.

There is a concern that is not just for the Army and the Department of Defense, but what are our allies doing as well. So the concern extends beyond the Federal Government and the United States, but also those that we have to interoperate with and our allies around the world.

Senator STEVENS. Well, I would hope that we would find some way to cooperate between what you are doing and our special committee. We have had some briefings from some of the experts in the area, and I am led to believe that some of the chips that were put in the systems had kept capacity far beyond the system, because it is less expensive to acquire chips that have an expanded capacity than it is those that have just a very narrow capacity.

And if you are dealing with a system that had a series of models and one was a super-duper model and the plain model, the plain model has the same chip, and many people may not understand that the functions on that chip are those that would be affected by the year 2000 problem.

I hope that we have a way of interrogating those people who sold us the equipment as to what type chip they used, and it is going to be a very serious thing.

Mr. WALKER. We found a new aspect of it every week that had not been considered. We just hope we find out all the aspects of it before the year 2000 comes around.

Senator STEVENS. Well, you could suddenly find out that the one chip that makes the treads go on the tank is the one that is hidden down there under the tank and no one knows it is there.

Mr. WALKER. Well, those critical systems are being very, very carefully managed to make sure we do not have that problem.

BOSNIA

Senator STEVENS. Very well.

I am really worried about the Bosnia situation, gentlemen. We were told by General Clark that the Army is going to be deployed in Bosnia for several years, and we have obviously the statement of the President. I was there at Christmastime, the same thing.

Do we have budgeting in here for the contracting support? Is this \$1.9 billion for the Army—what did you do about contracting support?

Mr. WALKER. It would include the Army's share of the support to the contractors that we have there, which provide the quality of life support to the deployed soldiers.

Senator STEVENS. All right. Well, I appreciate it. I may have some questions later, but let me go to Senator Cochran.

BUDGET REQUEST

Senator COCHRAN. Thank you, Mr. Chairman.

In looking over the statements that you submitted, I am encouraged first of all that the Army seems to have been able to obtain approval for asking the Congress to appropriate an increased amount of funding for this fiscal year compared with last, and this is something new. We have been seeing cuts every year since 1985, except for Desert Storm, so there is an increase in this budget request, and that is encouraging.

Mr. WALKER. We hope that trend continues, Senator.

RECRUITING AND RETENTION

Senator COCHRAN. I am curious also to see your upbeat appraisal of recruiting at a time when some of the other services are telling us that because of the operational tempo and other attractions of civilian life compared with the military now that they are losing highly skilled people. The Air Force is worried about having enough pilots to fly the planes and perform the missions.

But you suggest in your statement, Mr. Secretary, that recruiting has been doing well, more than 90 percent of the soldiers you recruited last year had high school diplomas, that you are not under any real stress there.

Do you anticipate this continuing, or do you see any problems with the prolonged deployments to places like Bosnia and elsewhere around the world and the operational tempo having a negative impact on future recruiting goals?

Mr. WALKER. Senator, let me say this about recruiting. If we had been testifying this time last year, it would not have been as rosy. But with the help of this committee, you helped us to increase allowances, bonuses, to increase the number of recruiters, and to take other actions which turned our recruiting problem around, and we were particularly having a problem which, if left

unaddressed, would have led to a readiness problem in terms of the number of unfilled squads, particularly in infantry and armor, that we have turned around, and we are now recruiting larger numbers of both infantry and armor. So we believe the recruiting aspect of it, with the help of this committee, is going in the right direction.

With regard to retention, the Chief and I were just looking at the figures. It is coming in at 104 percent of our goals. When we look at the 1st Armored Division and those divisions that have been deployed to Bosnia, we are surprised to find numbers of 120 and 130 percent. It appears that currently soldiers like doing their job.

What we do not know is, how many times can you keep asking, particularly families, to undergo the stress of multiple deployments? We do not know the answer to that yet, but we have the same concerns that you suggest in your question.

NATIONAL GUARD INTEGRATION

Senator COCHRAN. There is another question I would like to hear your reaction as well as General Reimer's, and that is on the plan to redesign the National Guard and integrate them into the Total Army concept. I understand that is undergoing some changes, and that some plans are being made to transform some of these combat troops to support units.

Tell me what you are planning to do with the funds that are made available in this budget in that regard, and have you been able to develop support among the National Guard Adjutants General [TAG's], for example, and bring them along with this program, or are we looking for a collision that is about to happen?

Mr. WALKER. With regard to the specific issue that you bring up, there was for the first time unanimous support of the 54 TAG's for that approach. What we are doing are converting 12 combat brigades to combat support and combat service support, which will help us reduce a significant longstanding shortfall that we had in combat support and combat service support. That is on track. I will provide you for the record the amount of money that is in this budget and how much is in the POM for that redesign, but that is one of over 30 initiatives that are underway that are being reviewed both in the Active Army and the Guard and Reserve.

[The information follows:]

NATIONAL GUARD REDESIGN

In the President's budget for fiscal year 1999, \$87 million is programmed for the Army National Guard Redesign Study (ADRS).

As of the President's budget submission, the Future Years Defense Plan contained the following funding for ADRS equipping and training:

		<i>In millions</i>
Fiscal year:		
1999		\$87
2000		114.4
2001		145.6
2002		180.6
2003		366.3
Total		893.9

Of the total, \$843.9 million is programmed for equipment, and \$50 million is programmed for training.

As we continue to assess and validate the ADRS, requirements are subject to change.

General REIMER. May I just say, Senator, there are a number of initiatives that basically work to bring the Total Army together and make it a more seamless Army. That is what it has got to be in the 21st century, and we have got to move in that direction.

The Secretary has mentioned the conversion of combat units to combat service support units, and that makes great sense from both a warfighting mission and a State support mission, and I think that has been accepted. The other part that has been accepted are the two integrated divisions that basically combine active component division headquarters with three enhanced brigades. We will develop that concept to its fullest.

There are others that we are discussing in terms of teaming concepts between one division of the National Guard and an active component division. More integration—the whole issue is to develop the trust and confidence among all members of the Total Army. That is what we are trying to do, and we are trying to do that through open communication, having everybody's opinion heard and evaluated, and also by working together to integrate wherever we possibly can.

Currently, we have three active component commanders commanding National Guard organizations, and that is fully accepted by all TAG's.

At the same time, we are looking at an exchange program where we would have active component officers commanding Reserve component units and Reserve component commanders commanding active component units.

I think the idea of bringing everybody together is absolutely what we have to do. That is where we put a lot of effort in the past year.

Now, there will still be discussions on that. There will be different opinions on how to go about doing it. These issues are complex. The discussions are rooted in the Constitution of the United States, but we are addressing them, and in addressing them, we are trying to do what is right for the Army and what is right for America.

THEATER HIGH ALTITUDE AREA DEFENSE [THAAD]

Senator COCHRAN. There has been a good deal of attention focused on the failure of a test of your Theater High Altitude Area Defense Program, the THAAD missile, so-called. Tell us what the current status of your views are about this program. Does this test mean that that is going to be an unsuccessful program and you are going to cancel it or something, or is this just one of a series of numerous tests, and you learn something from each one and proceed to stick with your plan of figuring out a way to make this system work?

Mr. WALKER. Senator, we are looking very carefully at the cause of that last failure. Let me say, we have a tremendous requirement that must be filled by THAAD, and that is the right platform to fill a requirement that our commanders in chief [CINC's] out in the field have identified to protect our forces.

We believe that the latter part of your statement is correct, that it is the right approach, and we are going to work those bugs out, and we are going to continue with that program.

General REIMER. Let me just add, Senator, if I could, the requirement is absolutely solid. The threat is there. This is not some threat that might come about. Tactical missiles are there, and we have to protect our troops. This is about protecting those quality soldiers that I talked about. So we are very, very solid in support of that requirement.

We have had a series of eight tests with THAAD. Of the five intercept attempts, we have not been able to achieve the results that we wanted totally. There has not been any systemic fault that we have been able to identify, and we are continuing to work the system.

The contractor has been given a cure notice and will come back in with a program this week with corrective action that will be taken. We are not falling off of the requirement. We are going to keep the pressure on the contractor and make this thing work. We need it for our soldiers.

Senator COCHRAN. We were over in Korea with the chairman 1 year ago, a little over 1 year ago, and it became very clear to us when we started asking what the threats were for our troops there, one of them was missiles, and the fact that you were at point-blank range there, but not only that, with North Korea developing longer range missiles our troops in Japan were being singled out by the North Koreans as potential targets, we were told.

So the fact of the matter is, we have troops all around the world who are under the gun now. We lost 28 in Dharhan during the gulf war to a Scud missile, and we know things have not gotten any friendlier in some parts of the world. They have gotten more hostile, with threats being made by leaders of some of these nation states against the United States.

So it is a matter of great concern to me, and I hope that we can take hope in the different programs that are under development by the services, and this is the system that is under development by the Army. This is the one the Army selected as the best approach to missile defense for its troops in the theaters.

So we wish you well. We are going to continue to provide, I hope, the level of funding necessary to get the job done. We need to have that missile system developed and deployed sooner rather than later, in my view.

Mr. WALKER. I think we need to stick with it, Senator, because of the other systems being considered, the THAAD is 5 years ahead of any other system that could compete.

We have a real threat now that we need to be dealing with. If we had it today, it would be deployed.

Senator COCHRAN. Thank you, Mr. Chairman.

Senator STEVENS. Senator Shelby.

Senator SHELBY. Thank you.

General Reimer, following up on Senator Cochran's questions dealing with THAAD, this is just a question regarding tests. You know, I believe they have had five tests.

General REIMER. They have had a total of eight with that system, Senator.

Senator SHELBY. What if they had 50 tests? I know you would learn a lot more. I just throw that figure out, because if the basic concept of a system is good, which people tell me it is, the more tests, the better chance you work it out, and then you say, well, gosh, we are going to do another test in 4 months, or 6 months, and everything is relying on that one test, whereas our real aim is to work the bugs out, is it not?

General REIMER. I think you make a very valid point. This is a system in the early stage of its development, and as we get more tests, we certainly learn more about it.

We have tried, and I think the contractor, working in conjunction and partnership with us, has tried very hard to make sure each of those tests is successful. So we have gone through that to try and really fine-tune it as best we could.

As the Secretary pointed out, it is still far ahead of any other system right now, and it offers the greatest opportunity to put the missile on the ground faster than anything else, so we are going to stay with it.

And you are right, we need to run more tests, and we need to run them as fast as we can, but we have got to make sure they are successful, too. That is the balance we are trying to achieve.

Senator SHELBY. General, you can just go back a few years, a good many years back when the M-1 tank was coming on line and there were all kinds of articles out there, it will never work, it is terrible, it is nothing, and you did have a lot of little glitches to work out, and you work them out little by little, and we know the history since then, do we not?

General REIMER. Absolutely.

SPACE CAPABILITIES

Senator SHELBY. I would like to get into something else, General Reimer. The Air Force recently has emphasized that it is undergoing a transformation into a space and air force, whatever that means.

The Army, as you well know, has also had a long and distinguished legacy in space. Given this heritage, what is your vision for the Army contribution to space operations, and how do you believe the Army can tailor space capabilities to support land force and joint missions, which is what you have done? Is that a real lively thing today?

General REIMER. I understand the question, and it is a very contemporary topic that needs to be discussed and is discussed a lot. The Army after next wargames that I mentioned in my remarks really have emphasized the importance of space.

Space is the high ground in the 21st century. We understand that. We are really very dependent upon space for the global positioning systems, for communications, and for intelligence, and so our effort has been to increase the emphasis in terms of Army involvement in space.

We have done that primarily through the U.S. Army SMDC, the Space and Missile Defense Command. That is headed up by Lt. Gen. Ed Anderson, and has been really the Army vehicle to emphasize space. We believe very strongly that we have a very strong fu-

ture in space, and the Army needs to be involved, and we will stay involved in space.

ENHANCED FIBER OPTIC GUIDED MISSILE

Senator SHELBY. General, both the House and the Senate authorizing committees zeroed-out the enhanced fiberoptic guided missile program. General, does the Army still support the Enhanced Fiber Optic Guided Missile [EFOG-M] Program?

General REIMER. Senator, the EFOG-M program is a program that we have in the advanced concept technology demonstration [ACTD] model, and I do not think both committees zeroed it completely. They cut, it is my understanding, pretty close to zeroing out, but not quite.

We brought the EFOG-M in as a hedge against the uncertainty of light forces being caught in a situation like Desert Shield and not having as many systems to kill tanks as they should have. So EFOG-M was seen as one of the potentials for the future.

To answer your question, we want to stay with the ACTD to continue to evaluate it. We are running some tests on it.

Senator SHELBY. It has come a long way, though, has it not?

General REIMER. It has come a long way. We have not gotten all the results out of it yet that we want, but it is coming along, and we want to stay with it through the ACTD phase and then make a decision at that point.

SCIENCE AND TECHNOLOGY

Senator SHELBY. General, what level of inhouse competency in Army labs and research centers is necessary to ensure that the Army develops technologies needed to achieve divisions of Force XXI, or Army after next?

General REIMER. In terms of level, I do not know exactly how to describe that, except to say we put about \$1 billion into the science and technology [S&T] base.

Senator SHELBY. It has paid off, too, has it not?

General REIMER. It has, and you identified a few programs that have been brought along by that.

We are using the Army after next wargames, which look at what the Army needs to be in the 2020 timeframe and the technologies we need to drive that S&T base, and so we are focusing our investments in S&T in that particular area. I think S&T will continue to be very important as we change to a fundamentally different Army in the 21st century.

Senator SHELBY. General, do you believe that if there is a downsizing strategy that results in Army scientists and engineers with high grade pay—in other words, high competence—to be placed in lower grades or lower performance positions, do you believe that would be good public policy or bad public policy?

General REIMER. Well, I do not think that is necessarily good policy. I think that is a reflection of the way we have had to reshape the civilian work force.

Senator SHELBY. If you had a downsizing, a gradual downsizing, trying to keep the best and the brightest would make a lot more sense, would it not?

General REIMER. It would. I worry about the shape of the civilian work force, because I do not think we have done a very good job of bringing new people in and growing the middle management we will need in the 21st century, but your basic thrust is right, Senator.

M-113

Senator SHELBY. I have one more question. The M-113 family of vehicles, getting into that for a moment, is the procurement and O&M funding profile now stabilized to accomplish the upgrades in a reasonable timeframe at the lowest cost?

In other words, it is my understanding that the modernization of the M-113 family of vehicles is funded in several different lines, and I am concerned as a result of funding requests for upgrades to the M-113 that are not consolidated or coordinated the Army may be upgrading these systems—you know, we want to do it at the lowest cost. Could cost savings be achieved by a consolidated and coordinated conversion plan for the M-113 family of vehicles?

General REIMER. We believe they are, Senator. There is a partnership between United Defense Limited Partnership [UDLP] and Anniston, and that is the most cost-effective means of doing it. I think most of it, if not all of it, is done in Alabama, as a matter of fact, but we think it is a very cost-effective program. It is as cost effective as we can make it.

Senator SHELBY. But it is moving along and saving money, is it not?

General REIMER. I think so, Senator, yes. I would like to provide more detail for the record on that one if I could.

[The information follows:]

M-113 PROGRAM

M-113 upgrade modifications are done by Anniston Army Depot in compliance with the depot workload law. Beyond that requirement, upgrades are also performed under a partnership agreement between United Defense Limited Partnership and Anniston Army Depot. Chassis inspection and repair is done at Anniston Army Depot, then United Defense Limited Partnership applies the upgrade kits. This partnership is the most cost-effective method of applying the upgrades and saves approximately fifteen percent of the cost to upgrade each unit.

Senator SHELBY. Secretary Walker, do you have a comment?

Mr. WALKER. Yes, Senator. Sixty percent of that work is done at Anniston. It is a great partnership, and it is working, yes, sir.

Senator SHELBY. Thank you, Mr. Chairman.

PINE BLUFF ARSENAL

Senator STEVENS. Senator Bumpers.

Senator BUMPERS. Thank you, Mr. Chairman.

Secretary Walker, I note that General Wilson, who is commander of the Army Materiel Command [AMC], has stated that he wants to cut AMC installations from 62 to 39. I have no objection to that as long as Pine Bluff is not one of them. [Laughter.]

Incidentally, Mr. Secretary, I do not have any objection to another base realignment and closure [BRAC] as long as Little Rock Air Force Base is not on the list.

But having brought this question of Pine Bluff Arsenal up, the thing that was mildly troublesome to me about that, first of all

they are already scheduled for 138 personnel cuts, which is about 16 percent of the personnel cuts that General Wilson is proposing, whereas the others are only taking a 3- to 7-percent cut, so I have, I guess, two questions.

No. 1, why has Pine Bluff been targeted for such an inordinate share of the cuts, No. 1, and No. 2, why he arrived at a magic figure, General Wilson arrived at a magic figure of 39. That makes me think he has a list in his hip pocket, and I would like to see that list.

Mr. WALKER. Senator, I have not heard that number 39 from General Wilson, and I will certainly take that up with him and discuss it with him.

With regard to the additional reductions that you refer to, that is part of the "Quadrennial Defense Review" [QDR] reductions that are going on throughout AMC and throughout the Army. General Wilson and the AMC staff have worked very diligently to keep those reductions to a minimum at all locations, but they still had reductions which were required by QDR that they had to meet, and that is the result of that requirement.

Senator BUMPERS. Mr. Secretary, I consider you a friend and I have the utmost respect for you, but I did write to you on March 10 on this item and, as they say in Arkansas, I ain't had no hearing.

Mr. WALKER. Really. You will get one today.

THEATER MISSILE DEFENSE

Senator BUMPERS. Thank you.

Now, General Reimer, back to Senator Cochran's line of questioning on THAAD, let us take Korea, for example. Let us take the peninsula. North Korea apparently has a big stable full of Scud's, about 600 of them.

We have been told by General Lyles that the improved Patriot can handle that, but my question is—and I am not questioning whether or not it can or not. Of course, I think PAC-3 would come closer to handling it, but for just purposes of discussion, do we have a sufficient number of interceptors there, either the Patriot or PAC-2, to handle that kind of arsenal in the hands of the North Koreans?

General REIMER. Well, we have forward-deployed, as you indicated, a Patriot battalion to cover a number of different installations over there, and it basically provides the low altitude point defense for that particular threat.

What we need, though, is the high altitude defense to complement, and that is why THAAD is so important. Patriot will allow you to kill a certain percentage of the threat, but to get the assurance that we want for our soldiers, we need that high altitude piece.

As you indicate, we are updating the Patriots over there from the standard Patriot to the GEM missile, which is an enhanced missile, and ultimately to a PAC-3. They will be one of the first to receive the PAC-3, so we recognize the criticality of Korea and are doing everything possible to increase its protection. But I would feel a lot better if we had THAAD over there right now, and I think General Tillelli, the CINC, would feel the same way.

Senator BUMPERS. You would not feel better if we had THAAD in its present state over there, would you, which has not been able to hit anything yet.

General REIMER. No; but I have a lot of confidence THAAD will do it.

Senator BUMPERS. I do, too. That is another kettle of fish.

But let me ask you about the North Korea No-Dong with a 600-mile range, and while that is still under development, they have not tested it since 1993, is that correct?

General REIMER. Senator, I do not know. I would have to go back and provide that for the record, because that is something I just do not know.

[The information follows:]

NO-DONG MISSILE

[Deleted.]

Senator BUMPERS. Well, I think the PAC-3 could handle that missile, and I understand development of PAC-3 is moving along very well, but I think the improved Patriot could probably handle that too.

General REIMER. Well, the PAC-3 is your improved Patriot. It gives you a greater coverage.

Senator BUMPERS. Do we not have a Patriot 2?

General REIMER. We have a Patriot 2 and a GEM missile, which is an enhanced missile that we are fielding over there right now, which gives you increased coverage over what we had in Operation Desert Storm. The PAC-3 will increase further the coverage, but it only gives you a low altitude coverage. You have to go up into the high altitude, and that is why THAAD is so important, to get into the high altitude in order to get the assurance that you want for your soldiers in terms of protection, and I think that is very appropriate for the No-Dong missile.

NATIONAL MISSILE DEFENSE

Senator BUMPERS. General Reimer, let me make a comment, and then just ask you to comment on mine.

I have not supported Senator Cochran's amendment. It is mildly troublesome to me. No. 1, Senator Cochran is a thoughtful person and I do not cavalierly take issue with him. We work together well, and he is a friend, and I think he has studied this issue very carefully, so that made it difficult for me to vote no on that.

On the other hand, I do not see any point in deploying before we have to until the intelligence community tells us that the threat exists, because the longer we go—first of all, we have had a very difficult time with THAAD, and we are going to have an even more difficult time with a ballistic missile defense, but be that as it may, stick with THAAD for the time being, as I say, I am most reluctant to deploy something that we do not have the kind of assurance in the effectiveness of that we have a right to expect.

So I want to put that off as long as possible, and in order to do that, I have to have a lot of confidence in the intelligence community to tell us what the threat is.

In other words, if there is no threat for the year 2003, 2004, 2005, I think we ought to continue improving the THAAD until we have a high degree of confidence in its ability to perform.

Having said that, and this will tell you why I was so troubled about Senator Cochran's amendment, the intelligence community did not know India was getting ready to explode a bomb, either, and every time we turn around we find these big intelligence gaps.

Senator Cochran and some of his cohorts made the point on the floor, which was a perfectly legitimate point, and that is, we do not often know what the threat is, but if we are going to spend \$25 or \$30 billion on intelligence, we either ought to quit spending it, or we ought to put some confidence in what they tell us.

All I am saying is, that is the reason this whole thing is so troublesome to me. If you have any comment on that, I would be interested in hearing it.

General REIMER. Senator Bumpers, what I would say is that the THAAD is a theater missile defense system. There is a threat out there that requires that right now. I do not think the intelligence community differs on that. I think we would say that the threat in theater missile defense is there. We need THAAD now.

As you get into national missile defense, then I think you start to get into question about whether the threat is there, whether we need 3 years to develop a system, and that kind of thing.

Senator BUMPERS. I mixed up apples and oranges there, General. Your point is well taken.

General REIMER. As far as the THAAD is concerned, I am convinced the threat is there. I think we ought to deploy THAAD as soon as we can. I agree with Secretary Walker, if we had THAAD now, we would deploy it in Korea, and we would feel a lot better about that.

FOOD STAMPS

Senator BUMPERS. Well, back to THAAD. You know, I take strong exception to buying 40 interceptors when we have our first hit, which is the present plan. To me that would be the height of folly. One hit might be a random hit, and to go all out to deploy that missile based on that I think would be foolish.

But let me ask you one other question, and then I will quit. In the New York Daily News there was an article by Lars Eric Nelson quoting a General Russell—is it Honore?—he says, I have got a tank commander who has a wife and three kids living in a trailer park down in Killeen, TX, and he is on WIC, and I might say, that would be most interesting, since WIC is a women's and infant's and children's program. That is interesting for a tank commander to be on it.

But I think what he meant was, he was on food stamps, or his family was getting food stamps, because as I say, WIC is a program for pregnant women. This tank commander would hardly qualify.

But the point he was making is, he talks about a welfare Cadillac, and he calls the M1A2 a welfare Cadillac. Here you have got a guy who is commanding a \$4 million tank and he goes home at night and eats food bought with food stamps, and I must say, that point is well-taken. That point has been made in this committee time and time again.

Can you tell me how many of our servicemen qualify, not actually draw food stamps or any form of welfare, but how many people qualify?

General REIMER. We can give you that number, and I will be glad to provide it for the record.

[The information follows:]

HOW MANY ARMY SERVICE MEMBERS QUALIFY FOR FOOD STAMPS

Based on a Department of Defense survey and study, the Army estimates that 9,968 soldiers are eligible for food stamps. For military members to be eligible for food stamps, their cash pay must be less than the gross income eligibility limit for food stamps. Food stamp eligibility requirements are 30 percent above the poverty level and are based on family size and total family income.

When estimating the number of food stamp eligibles, we assumed qualifiers based on a worst-case scenario. We assumed the member's income was the only source of household income, while, in fact, more than 60 percent of military spouses work. However, since their earnings are not known, they are not counted in this analysis. Second, we assumed members received no other special pays and/or allowances and no earnings from other sources, such as interest or rent. Finally, we assumed the other resources of the member are limited and would not preclude his/her eligibility.

While it is unfortunate that there are military members eligible and receiving food stamp benefits, eligibility for food stamps is largely driven by the rules used in determining eligibility rather than by soldier compensation. For example, the free housing service members living on base receive does not count as part of income for food stamp eligibility purposes. Additionally, households may have up to \$2,000 in countable resources, such as a bank account, and other resources, such as a home and land. Thus, it is possible for soldiers with above average incomes to be eligible for food stamps.

General REIMER. From the Army's standpoint, it has to do with first of all your pay and then the size of your family.

Senator BUMPERS. Yes.

ADEQUATE PAY

General REIMER. Let me go back to Russ Honore for a minute, because Russ Honore is one of our better warfighters, in my opinion. He has a lot of experience, and what he is reflecting is absolutely what all of us feel.

We have the best soldiers in the world, the best people, America's sons and daughters, and we owe them an adequate and predictable quality of life. That is why one of the top priorities, and probably the top priority, is to provide them adequate pay for their services.

Now, that wife may have been on WIC. I do not know whether it was food stamps or WIC that he was talking about.

Senator BUMPERS. Well, I think he is making a point.

General REIMER. The point is the same. We are not paying them enough. We need to increase their pay. That is why your support on the 3.1-percent pay increase that we programmed for this budget is very important, and I would hope that we would continue that, because those soldiers are about 13 percent behind their civilian counterparts, and we are not catching up fast enough. We need to take care of them, or else they are not going to be with us that long.

Senator BUMPERS. General, why don't the Chiefs, or why doesn't the Secretary come over here with a proposal to say, we want enough money to make sure that no man or woman in the U.S. Armed Forces is forced to apply for or eligible for any welfare program?

Now, the chairman and Senator Cochran and Senator Domenici know that I am a little bit of an iconoclast when it comes to defense spending.

Senator DOMENICI. What is the word?

Senator BUMPERS. That is too big a word for them. I am a spend-thrift.

But in any event, that is one place where you get no squawk from me, and I do not understand why the request is not made. In my opinion the U.S. Congress would respond and respond quickly.

General REIMER. Senator, I have been Chief for 3 years and consistently have said our four priorities are adequate pay, medical care, housing, and a stable benefits and retirement program. We continue to push them, given the top line that we have, and we will continue to do that, but we also have to make sure we keep it balanced.

We have a responsibility to make sure that those soldiers that we put in harm's way are trained and ready, and that is what this budget is all about, achieving that fine balance that I talked about in my opening statement.

Senator BUMPERS. Thank you, Mr. Chairman.

Senator STEVENS. Yes, sir.

Senator Inouye.

READINESS

Senator INOUE. Mr. Chairman, I apologize for having rushed out. There was an emergency. Forgive me, sir, for not being aware of the questions that have been asked. I may be duplicating them, if I am, please advise me.

Mr. Secretary and General, the one word that concerns all of us here is readiness, and there has been some discussion that several of your Army divisions may fall into the category of C-3 by the end of this year. Is this a problem of readiness or definition? Can you enlighten us?

General REIMER. I think it is truly a product of readiness in the future. What we have asked for, and what the omnibus reprogramming that Secretary Walker mentioned in his opening statement is designed to do, is to make sure that the readiness of those divisions does not slip.

What has happened is that we have funded them in 1998 at a certain level of OPTEMPO which has been standard for us, 800 miles, but we have underfunded them in base operations and real property maintenance [RPM], and also in terms of barracks improvements, so there has been some migration of funds to make sure we take care of quality of life.

The point that I was making with Senator Bumpers is, if we do not take care of soldiers in terms of quality of life, then we are not going to be able to keep these same quality soldiers. So what the division commanders in the field are doing is to try and work that balance.

We feel like there is a small omnibus reprogramming requirement for us. We are working that with OSD right now, and, hopefully, it will be on its way over here, and we think that will take care of any potential readiness problem we have in the fourth quarter with the active component divisions.

Senator INOUE. Do you have any comment, Mr. Secretary?

Mr. WALKER. No, sir; I will just reiterate what the Chief said. We would solicit your support for the reprogramming, because we will need it to ensure readiness for the remainder of the fiscal year.

Senator INOUE. Mr. Secretary and General Reimer, about 10 years ago the Army had about 105,000 troops assigned overseas in the Pacific. Last year, it was down to 78,000. The 6th Division in Alaska has been downsized to one brigade. The 25th in Hawaii has lost one brigade. The 7th at Fort Ord, CA, has been dismantled. The High Technology Light Division at Fort Lewis, WA, has been dismantled.

There are some who view these as signs that the U.S. Army continues to focus on Europe and does not care too much about the Pacific. How would you respond to that contention?

General REIMER. Senator, I would say your figures are absolutely correct. There has been a downsizing in the Pacific, but it has probably been fairly consistent with the downsizing across the Army overall. The active component has come down about 38 percent in terms of numbers. If you look at Europe now, for example, and compare it to Europe in 1989, we had 216,000 soldiers over there. Now we have 65,000. I do not think the cuts in the Pacific have been that great.

I totally agree with you; we were probably too oriented toward Europe during the cold war, because that was the major threat. We are trying to shift our emphasis to the Pacific and get a more balanced view of both of those theaters, which I think are very important to the United States, and in so doing, we brought down Europe dramatically.

We have 75 percent of the fighting force of the active component in the continental United States that can go to either region, and we have a pretty balanced number of soldiers deployed to the Pacific and deployed to Europe, so that is what we have been trying to do, and tried to work that balance as best we could.

Mr. WALKER. Senator, let me just say, the importance of the Asia-Pacific region cannot be overstated. We are in many respects a Pacific nation now because of all of our trade that we do there, and the Army keeps that in mind, and we will continue to keep that in mind as we look at the future.

All you have to do is pick up the newspaper and look at what is happening in Indonesia today to know that there can never be a lack of attention by the United States on the Asia-Pacific region.

NATIONAL GUARD FUNDING

Senator INOUE. I thank you for that.

The other words we use today are total force, integrating the National Guard with the active component. However, in providing resources to the Guard, especially in military construction the Army's allocation I believe is rather inadequate. Why does the Army not provide enough funding to support National Guard needs?

Mr. WALKER. Let me say, Senator, I think our military construction budget, in general, is underfunded, because we had to pay for other competing requirements as we put the budget together.

With regard to the specific amount that is included for the National Guard, there was an agreement as part of the offsite at a

certain level, and I think it is \$50 million in the next several years would be included in the budget, and that is why you see the level that is included this year.

Senator INOUE. I hope you look over some of the requests that have been coming through from National Guard units throughout the United States. Looking over them, they seem to be rather urgent in need, and I would hope that you would give them another look.

Mr. Chairman, I have several other questions I would like to ask, but may I submit them, sir?

Senator STEVENS. Yes, sir; we will submit your series of questions to the gentlemen.

Senator Domenici.

Senator DOMENICI. Senator Bumpers wants me to yield to him first.

NATIONAL MISSILE DEFENSE

Senator BUMPERS. I just wanted to clarify the record on my line of questioning to General Reimer earlier, when I mixed THAAD and national missile defense.

Senator Cochran's amendment goes to a national missile defense system, and when you said a moment ago—we were talking about the intelligence community and you were talking about intelligence admits that there is a threat, there are threats that we do not even know about, you were talking about theater missile threats, were you not?

General REIMER. What I was saying is that in the tactical missile defense arena, the threat is out there to justify the THAAD. It is not a matter of trying to develop the threat, or worrying about the threat. It is there.

Senator BUMPERS. I understand that, and I totally agree with you, but I wanted to make sure that you were not saying that there was a national missile threat that the intelligence community did not know about.

General REIMER. I am not aware of any.

Senator BUMPERS. Well, the only thing I can think of that might even come close, and I think we know as much about it as we can, is the Taepo Dong-2, which is the only missile I know anything about that could possibly hit Hawaii, as being a threat to the United States.

General REIMER. I am a little worried about the classification of that system. I prefer to provide that for the record, and I would also like to make sure that I talk with the intelligence community on their assessment of the threat.

[The information follows:]

TAEPO DONG-2 MISSILE

[Deleted.]

Senator BUMPERS. I just wanted to clarify the record on where the threat was, or whether there was a threat or not, because as I said, in the debate on Senator Cochran's amendment, the whole debate was that there is no threat, and whether you wanted to wait until the intelligence community defined the threat and de-

scribed it to us before you deploy, that was the real issue in Senator Cochran's amendment.

Senator Domenici, thank you very much.

Senator DOMENICI. You are welcome.

General, Mr. Secretary, Mr. Walker, it is nice to see you. I used to see you a lot more when you were on Senator Sasser's staff.

Mr. WALKER. It is good to be back.

Senator DOMENICI. I might say, we are all getting more mature. Even you look older.

Mr. WALKER. Yes, sir. I remarked earlier, I turned 50 this year. I am beginning to think about it.

WHITE SANDS MISSILE RANGE

Senator DOMENICI. General, and Mr. Secretary, I was going to take a little time and talk about White Sands missile range and the personnel cuts there, but I am not going to do that. I am going to submit the questions with the background to you. I would very much appreciate your paying personal attention to it and giving me some answers.

I also would like you to make sure that Lieutenant General Lyles, who came up here and testified about the overall missile defense programs—and he said at that hearing that he would check to see whether the Army's plans for White Sands missile range reductions were consistent with the overall military plan for using the range during the next 5 to 10 years because of plans for new missile activity like THAAD.

I am concerned that you, being a soldier, are following orders on a budget, trying to get within the 5-year budget plan, and I give you great credit for trying to do that. No other people in Government have to do that, just the Defense Department. There is nobody else with a 5-year budget in this Government except you guys, and whenever somebody talks about budgeting you ought to remind them.

There is no 5-year budget for HUD. There is no 5-year budget for NIH. They all change as people need more things, and you have to plan all of these resources for 5 years.

But in any event, I would be very disturbed if we cut back the personnel at White Sands missile range, our major inland missile range, and then find that in 3 or 4 years, to meet the national plan, that we made a mistake and we had to go back and hire them back. It would be very expensive. I am also concerned that we have opened the window at White Sands to people getting out of the service.

I asked them to please wait until we had oversight hearings. They told me they would, but then they did not, so these people are going to be gone by the time we decide, with evidence from General Lyles and yourself, whether it is totally correct.

Now, having said that, I joined our chairman and ranking member on this trip to the Middle East. I do not travel very much, but I have learned a lot more from it, and so I am doing it more. I did not get to work with as many Army people on the ground as I did Air Force. That was just a coincidence of how we broke up our groups.

IMPACT OF DEPLOYMENTS

But I am very concerned about the impact of so many deployments overseas and so many deployments that leave and then come back, redeploy. I think the military has to be honest with this committee and with the President and tell us what impact that has on the lifestyle of our troops and whether they really feel like they are part of something worthwhile when that happens.

From talking to these people it is so different than the man on the ground in Bosnia, where they have a mission, and there is a much better deployment scheme, and you do not bring them in and out. We talked to a couple of people who were in and out 10 times or more, 11, in the Middle East in a few years. Well, you can understand that that guy has got a few kids and a wife. He did not sign up to be in the Foreign Legion.

So I have some questions regarding how you go about asking the military men and women for their views about their treatment, and I really would like you to look at them, because I believe we are in a position where I think you need some outside confirmation of the attitude of the young men and women, because it is suspect when overseers ask underlings to answer questions about the overseers.

They are not going to say, "We do not like our four-star general," right? They believe somebody is going to find out, right?

So I am asking that you take a look at outside polling under your direction, and that you really get us some answers about what is going wrong in the quality of life and the rest.

And I want to make one other point. I hope nobody in the military is thinking about trying to give preferential treatment to military people who do not have kids; all we need is an Army that does not have any families.

Frankly, if I heard such a thing we would have one hell of an explosion up here, because when you ask men and women to stay in 20 years, you cannot then say, well, we do not like it, they have got too many kids. That cannot be our situation, or we will have acted totally irresponsible in my opinion.

PRIVATIZATION

Now, I also am going to ask you some questions for you to answer about how you are going to get the 20-percent savings over the next 5 years, each year, from privatization. I am aware that this is a huge burden on you, that if you think there is one thing that may not happen in your budget, it is that.

You are, again, good soldiers, you are going to go try to do it. But you see, we are left with a situation, if the privatization does not work, and save money, then what do we do to pick up the money that you already put in your budget as being saved? We are going to have to put it back in there, or else you are going to have to cut something that you do not plan to cut, and we did not plan to cut.

BUDGET SHORTFALLS

My last point has to do with your budget, and I just want, since you are a member of the Joint Chiefs, I want to tell you, as one

Senator who works on the budget and tries desperately to keep ourselves as a Nation from overspending, I do not appreciate the Secretary of Defense and the President sending us a budget and then putting \$1.9 billion into an emergency pot to pay for Bosnia, where we have now been—how many years, Mr. Chairman—4 years.

Now, that puts us in a position where if we cannot get that deemed an emergency, then we are going to be deemed cutting defense more than our President, and that is not right. In fact, I have been trying to figure out a way to send him his budget back—I do not know how I am going to do it yet. Maybe it is too late—but send it back to the President and say, Congress is not going to agree that this is an emergency. It is 4 years now that we have been in Bosnia.

So you do us a new budget and tell us about it, and I would urge that he raise the caps. We may have to do that ourselves. I may do that in conference when we go to the House. They want to cut domestic spending. I may surprise them and say, well, while you are cutting so much, why do you not add \$3 billion on the defense side.

I probably would not win, but I am telling you where I stand. [Applause.]

Having said that, you just heard my spiel about all this, and I did not let you answer any questions, but you will have a bunch of them in writing, and I really would appreciate your personal attention, particularly with respect to White Sands.

General REIMER. I will call General Lyles and talk with him myself.

Senator STEVENS. You see how fortunate we are to have as a member of our committee the chairman of the Budget Committee. I want you to know he does carry the defense shield wherever he goes, and we are either going to do it his way, or if we cannot do it his way, we will do it the stealth way and try to get you some more money.

Senator DOMENICI. And I will help you.

Senator STEVENS. We will get that money.

Senator INOUE. Mr. Chairman.

Senator STEVENS. Yes, sir.

SOUTHWEST ASIA DEPLOYMENTS

Senator INOUE. If I may follow up with Senator Domenici on his trip to Kuwait, he worked with the Air Force personnel and I was assigned to the Army, and the first question that I was asked by the assembly was rather stunning. When do we go home?

I did some investigating and apparently those who were there before the recent Iraqi-Saddam Hussein crisis are not feeling that way, but those who came afterwards, during the crisis, who really do not know when they are going to be leaving, are quite concerned, and I hope that we will be able to clarify that so they can tell their wives they will be home for Christmas, or Thanksgiving, or something like that.

The other matter, which may be out of your area of responsibility, several of the Army people complained that they were not permitted to wear the American flag on their uniform, and they were

hoping that rules and regulations can change so that they can put it on.

I realize that the host country in the case of Saudi Arabia is not too happy with that. Are any steps being taken?

General REIMER. Senator, that is news to me. I am meeting with the Army Central Command [ARCENT] commander this afternoon. I will bring that up with him, and we will get into that. I do not know exactly whether they were permanently assigned there in Kuwait, or whether they were deployed over there as part of the 3d Infantry Division. The 3d Infantry Division went over there with the American flag on their shoulders. I will have to get into the details of that.

But can I also just come back to your question. I think that is a very natural question. It was a thing that we experienced in October 1990 when I first went over on Desert Shield. The soldiers wanted to know when they were going to come home. When we said, you are there for the duration, that question went away. They understood that, and they accepted that.

I think that is a very natural reaction for the soldiers over there, and we are working very hard, the Joint Chiefs, to make that determination or recommendation in conjunction with the administration on how we are going to go about rotating them, or what are we going to do.

Senator INOUE. Otherwise the men and women were in great shape. They just want to know when they are going to get home.

General REIMER. I visited them just a couple of weeks before you did and had the same impression. They were making the most out of some very austere conditions, and I was very proud of them, as I always am.

HEALTH CARE

Senator DOMENICI. Would the Senator yield?

General, I failed to mention something about health care. I am not one who thinks you can introduce a big medical program without some things going wrong, when you all are trying to get out of the CHAMPUS mode, which was a failure, to a better mode, but I believe that it ought to be a very high priority of the Joint Chiefs that somebody finds out the extent to which TRICARE is not working. There ought to be some very stiff penalties imposed on those who are delivering this system if they make mistakes.

If they are not the ones making them, then that is one thing, but we ran into one situation where a sergeant, in front of the general, got up and said, I have had to call home for a private with two kids because his wife is being hounded to pay health care bills and she is frantic because she does not have enough money, and that is not her responsibility to pay health care bills for those two kids. She is right on a base.

And it struck me that if we hear one—my rule in my office, if you hear a complaint that people are willing to run up and tell you about, it is not the only one. My rule of thumb is that there are usually a lot of them, and I urge that you do everything you can in that regard.

General REIMER. I think you are absolutely right, Mr. Chairman. We are really focusing on that. We have transitioned to a new care

plan called TRICARE, and there have been some bumps in the road. What we have tried to do, and what we are doing, is go after each one of those individual challenges like that and figure out what went wrong and how to fix it.

I think once we have gotten everybody in the Army on this TRICARE plan, we will start to work our way through that, and I think we will provide the adequate care that our soldier is so entitled to.

Senator DOMENICI. Thank you, Mr. Chairman.

MORALE

Senator STEVENS. Senator Bumpers asked me, what are you doing signing your mail when we have a hearing going on? I have to tell you, if you come from a State like mine, you read your mail, every one. There are so few of us that I know them all, and I apologize for that.

But I also want to tell you that on our visit—we said this when we met with the Secretary, but I want to make sure that we say it on the record and publicly. We found such enormous morale in Bosnia as compared to the morale that we found in Kuwait and Saudi Arabia. I think, as I said, it is a tribute to General Ellis and to your whole system that, despite the fact of the questions at home about deployment, once they are there, those young people were doing their jobs, and we are very proud of it, and we are proud of them.

But I have walked around a lot of bases and I have been in a lot of places with many general officers, and you can tell when the troops understand who he is and have great respect for him. That was a great day we spent with him.

172D SEPARATE INFANTRY BRIGADE

Last, let me say to you that I am grateful to you, Mr. Secretary, for going up to the ceremony when we redesignated the 172d Separate Infantry Brigade for Alaska. That solved a tremendous problem for us. Everybody used to tell me we had an orphan brigade, and now it has a mission and it has a real definition as part of the forces that my colleague has out in Hawaii, and we are part of the Pacific, where we think we should be, and I do thank you very much for that.

I think General Simpson did a tremendous job in pursuing that. It is my understanding that the U.S. Army of the Pacific is going to ask you now to redesignate one officer there at Wainwright to be a brigadier to solve this problem of north and south of the range in Alaska.

I am not going to ask you now what you are going to do with it, but I hope that you will help us really nail down that solution so that there is not this animosity between our two major cities over who commands Wainwright.

As Senator Domenici said to us, we have had some real fine trips here in the last year or so, and a lot of them have been to places under your command, and we are ex-Army people. I was Army Air Corps, he was Army, but when you look at the people we have got out there, they are fine people, and we are really delighted.

RETIREMENT SYSTEM

The only thing I have got to tell you that we ran into that I am still trying to study was that buzz-saw on retirement, and we are dedicated to try and find some way to correct that if it was an error. I do not know yet whether it was an error, but I have talked to members of the Armed Services Committee about that.

This concept came at us through an e-mail. That also was enlightening, that almost every tent had an e-mail outlet. Now, that is a new Army, General.

But they were all waving this one little bulletin that came out of, was it Fort Meade? But it was very critical to the policies of Congress and alerted people in the Army to the fact that there had been a change.

That change was made several years ago, as you know. I do not know if you all have some recommendations for me. If you have any recommendations for us as to how to fix that problem—we do not want that problem of retirement to seep in and give you all the kind of morale problems we found in Kuwait and Saudi Arabia, so keep us informed if there is something we can do, General.

General REIMER. Mr. Chairman, may I just say, on that specific issue, you are absolutely correct, and to refer to a comment made earlier, we do a sample survey of military personnel in the Army each year to really get at this morale issue and how people are feeling. The retirement system is the fastest growing area of dissatisfaction there.

There are three retirement systems in effect for military personnel right now. I am under one. There is another one for people that are a lot younger than me, and the one that you are referring to I think went into effect in 1986.

Senator STEVENS. I was the author of that, the Federal employee retirement system.

General REIMER. The first one is a very good retirement system, I think, but I think there is a great deal of concern about the last retirement system, and it is the fastest growing area of dissatisfaction we see out there in terms of morale.

Senator STEVENS. Well, if you could get us some sort of information on it, we will do our best to see if we might confer with the Government Affairs Committee. As a matter of fact, three of us are on that committee, so we will confer with them and perhaps we can find a way in this year's bill to find a way to make those retirement systems into one and compatible, and pick up these people who think that they were harmed by coming in at the time they did.

I did not understand it, because this one young man said he came in after this other fellow did, and he had a better retirement system under the new plan, and there was sort of a gap there in about 1987, I think it was, 1988, but I would like very much to pursue that and try to iron it out so that it does not eat into the morale that we saw was so good.

Are there any questions, comments? Senator Cochran.

Senator COCHRAN. Mr. Chairman, we did have a hearing on that the other day in our subcommittee that I chair. The Federal services comes under the jurisdiction of that subcommittee, but it was really on the civilian system, but it sounds like a similar problem

on the military system, and I do not know that we have looked into that yet, so we ought to.

Senator STEVENS. That is why I said, I do not think we did. I saw that you were onto that. I congratulate you for that, too. There is a glitch on the civilian side, too.

Senator COCHRAN. One other question I wanted to ask, and that has to do with this new Force XXI, the modernization. General Reimer in his statement makes, I think, one of the best most succinct statements about the challenge of the future.

On page 13 in his statement he says:

I cannot overestimate the risk we take by failing to modernize. The continuing threat of weapons proliferation can allow even no-tech nations to field high-tech armies in the flash of an arms deal.

Though no nation may be capable of fielding a force that can compete with the United States in a conventional war, any nation can develop a niche capability that will cost American lives in a future conflict.

I think that is not only eloquent, but it is also a challenge to all of us to realize and appreciate the importance of modernization, taking advantage of the emerging technologies of all kinds, whether we are talking about missile defense, communications, radar systems, all the rest, and how important it is for us to stay up to date, and that is the reason why we are so secure right now in terms of the safety of U.S. citizens and our interests abroad are fully protected, because we do have the best, most modern, most up-to-date armed force in the world, but we want to keep it that way.

POSITION LOCATION SYSTEM

One thing that is a part of this, I know, are your plans for position location reporting systems. There is one system that is an integral part, as described in your posture statement, of the future battlefield situation analysis.

Would it be helpful for us to review this carefully to be sure that in each of these component systems we are providing the level of funding necessary to keep this whole process moving forward? That is something that could easily get overlooked, because there are so many acronyms and names of new things that you are putting into this battlefield management program for the future that I hope some of us do not overlook the importance of each one of these systems.

One of them happens to be made in my State. I am kind of like Senator Bumpers. It got my attention when I saw that we were actually producing in the State of Mississippi one of these component parts, the enhanced position locating and reporting system, EPLRS, it is called.

General REIMER. Senator, I think first of all that you are right; that is a fundamental change for the Army, and basically we set out to answer the questions: where am I, where are my buddies, and where is the enemy? We figure that if we could do that, then we could change the way we do operations on the battlefield and even during operations like Bosnia.

That has turned out to be exactly what the experimentation has showed us. We have about \$2.6 billion in that particular effort, but as you say, it is in small lines and kind of hidden. We will be glad

to work with the committee staff to make sure that you understand what is in there and how important that is to our efforts to modernize the force, the digitization of the force, as we call it.

Senator COCHRAN. Thank you very much.

Senator STEVENS. Mr. Secretary and General——

Senator DOMENICI. Could I make one observation?

Senator STEVENS. Yes.

RECRUITING AND RETENTION

Senator DOMENICI. Mr. Chairman and the two witnesses, I just want to give you an observation regarding recruiting and retention.

Frankly, we are putting a lot of blame on you all for retention not being as good in some parts of the service as they were 5 or 6 years ago. I think the reality of it is that you are also in competition with a vibrant, powerful American economy, and the truth of the matter is, there are not so many kids 17 to 23 or 24 who cannot find good jobs, and there are those in the military who are being offered spectacular jobs if they get out and take them.

And I think that is why it is important that you look at whether our pay is correct, whether our benefits are adequate, because we do want America's economy to go on for another 5 or 6 years without a recession. That is not going to make your jobs any easier, but we surely are not going to have a recession to help you recruit. You understand that.

Mr. WALKER. Senator, thank you for making that comment, because it is difficult out there just for the reason you mentioned. Even McDonald's provides funding, money for college for people who come to work for them now, young people come to work for them. That is amazing competition we have out there, so you make a very important point.

Senator DOMENICI. Thank you.

MEDICAL TECHNOLOGY

Senator STEVENS. We are trying to compete with that right up here, as a matter of fact.

Gentlemen, I have a few rabbit trails I pursue, and one of them is medical technology. Now, out there at Walter Reed there is an angiocat. General, your wife is here, so I do not want to ask you if you have been there, but I want to urge you to go there and go through that, and you, too, Mr. Secretary, because we are working on angiocat 2.

Now, the angiocat 2 is designed for the battlefield if it comes through, and the two of us have a great interest in that, personal interest in that, and we want to see that there is an understanding in the military where that medical technology is going in order to try and care for a person that is wounded in a modern-day battlefield, the speed with which they have to be handled, and that angiocat 2 can do it.

But in order to understand angiocat 2, you have got to understand what angiocat 1 does, and then to see what a new version of that would do in the battlefield structure, so I would urge you to do it. As a matter of fact, I went out there and went through it myself. I went out there to California, and went through it where it was made.

But it does seem to me that this is a technology now that even in terms of the first version is dealing with preventative medicine for the military, and we ought to get ahead of the curve and not just treat the people after they get sick.

This thing can give you an advanced knowledge of what is coming, and we almost ought to send everybody through it before they are deployed overseas.

It is like my wife's father said, "be sure she gets her teeth fixed before you get married"? You ought to take care of these guys before they go over. You ought to take care of them, and that angiocat process could do it.

So if we can get the time down, where it is the timeframe you can spend to send them through—you literally, on the angiocat 2 it takes 90 seconds. This takes 15 to 20 minutes, but still, it is a worthwhile thing.

And I would urge you, pursue it and help us make certain that it is the tool that we believe it will be for the future in dealing with the military, and when we are talking about the military, we are primarily talking about the Army in terms of the kind of wounds that your people will get, God forbid we get into another conflict.

ADDITIONAL COMMITTEE QUESTIONS

We do appreciate you being here today, gentlemen. It is something we look forward to.

Mr. Secretary, we thank you for your help, and General, it is always a pleasure. Thank you very much.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. ROBERT M. WALKER

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

PRIME VENDOR SUPPORT

Question. I understand that the Apache program may have to "buy its way out" of the current depot and base maintenance structure in order to move to Prime Vendor Support (PVS). Can you tell us how much "revenue" Apache bases will lose under PVS and how much it may "cost" Apache?

Answer. There are no planned changes to supply and maintenance procedures at the base level except that the required repair parts will be issued free to Apache units under the proposed PVS contract. Under PVS, flying hour dollars for parts will no longer go to the installation, but will be used to fund the PVS contract. All other field-level funding remains the same. If the PVS program is implemented, we anticipate significant savings to the Apache program.

Question. How would Congress be notified of substantial modernization efforts started under the Apache PVS contract?

Answer. It is the intent of the Army to maintain continuous communications with Congress. Before any PVS contract is signed, Congress will be notified via an Information for Member of Congress memorandum as to why the Army is awarding the contract and what modernization activities are planned. PVS specifically requires the contractor to operate within the firm fixed price of the contract and not to expand the performance. Future modernization efforts are an integral part of the basic contract and will be funded within the negotiated price of the contract. The proposed contract includes incentives, including loss of profit if planned modernization efforts are not completed.

Question. How would the Army pay for cost overruns on PVS modernization efforts? Would the Army turn to the Congress or other Operations and Maintenance programs?

Answer. The proposed contract is a firm fixed price contract to include the planned modernization efforts. Any cost of overruns will be borne by the contractor and would not impact any other appropriations.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

PRIORITIES

Question. In its Department of Defense Authorization bill, the Senate Armed Services Committee added about \$315 million for "Base Support" and "Maintenance of Real Property" in the Army Operations and Maintenance account, and it added about \$300 million for additional trucks and helicopters in the Army Procurement account. Do these add-ons represent the Army's highest priorities in the 1999 budget?

Answer. The Army's top unfunded requirement remains the \$1,390 million for fiscal year 1999 Bosnia contingency operations. However, this past March, a list of the Army's fiscal year 1999 unfunded priorities was forwarded to the committee chairman. That list focused on our top priority of readiness and included unfunded requirements for Base Support, Real Property Maintenance, trucks, and helicopters.

Question. If this committee finds funds to add to the President's request for the Army, where do you recommend we put that money? Real readiness issues such as training and spare parts? Quality of life issues? Which quality of life issues?

Answer. In March, the Army submitted to the committee a list of its top fiscal year 1999 unfunded priorities. The top five issues support Total Army readiness and include: fiscal year 1999 Contingency Operations; Army National Guard Military Technicians; Total Army Real Property Maintenance; Total Army Base Operations Support; and Army National Guard/U.S. Army Reserve Operating Tempo.

The unfunded priority list was based on some up-front assumptions. First, the fiscal year 1999 budget amendment must include new funding to pay for on-going contingency operations in Bosnia. Second, the Army's fiscal year 1999 budget would be funded in the categories we requested. If these assumptions hold, the Army's first use of additional funding will be to resource near term readiness shortfalls in training and maintenance.

PRIVATIZATION

Question. What savings does the Army plan from contracting out for 1999 and 1999-2003?

Answer. The competitive sourcing initiative is programmed to achieve net savings of over \$1 billion during fiscal years 1999-2003 by conducting A-76 studies of approximately 48,000 civilian and 8,000 military commercial activity-type positions. The Army expects to generate gross savings of \$48 million in fiscal year 1999. These programmed savings are based on a 20 percent reduction of the spaces studied along with the associated salary dollars.

Question. How did the Army arrive at the number of civilian and military jobs to be eliminated and/or contracted out?

Answer. The Office of the Secretary of Defense provided programming guidance. The guidance governing competitive sourcing directed the services to program a minimum 20 percent reduction in civilian end-strength and dollars. The Army elected to use Circular A-76, Performance of Commercial Activities, as its tool to achieve directed cuts.

Question. Were specific, individual studies performed to analyze the savings and appropriateness of activities to compete? Or, was a goal imposed "from the top?"

Answer. In 1995, the Commission on Roles and Missions recommended all non-core support activities be outsourced. In its August 1996 report, the Defense Science Board Task Force on Outsourcing and Privatization recommended the Department of Defense establish a goal of shifting dollars savings achieved through competitive sourcing from defense support activities to modernization. Finally, the Quadrennial Defense Review, in a report released in May of 1997, directed cuts be programmed in the fiscal year 1999-2003 Program Objective Memorandum.

Question. How did the Army determine that contracting out saves 20 percent? Why does the Air Force assume different savings? Please provide copies of the analysis you performed to come to the conclusion that 20 percent was the right number.

Answer. The 20 percent savings figure was not the product of a written analysis. The fiscal year 1999-2003 program guidance directed a minimum 20 percent reduction of the spaces studied along with the associated salary dollars. Historically, average savings based on winning contractor or in-house bid versus pre-study cost has been approximately 28 percent. Given previous and competing initiatives to reduce

the civilian workforce, the Army viewed 20 percent a more conservative savings factor.

Question. With fewer military personnel and DOD civilians after all this contracting out, what will be the impact on overseas rotations and "perstempo" problems?

Answer. Rotation and personnel tempo problems related to competitive sourcing are minimal, because the Army has so few overseas military positions for which rotation base positions have to be preserved.

Question. How will the Army monitor and document the progress in achieving your outsourcing programs and achieving the planned savings? Will these data be confirmed by an outside party?

Answer. The Army is developing a database that will track the outcome of these commercial activities studies to validate savings. In the interim, we have asked the Army Audit Agency to validate savings. The Army also receives reports on study progress regularly from its field commands. Savings are documented on cost comparison forms which reflect the results of each study. While the Army has not requested an outside agency to review future A-76 results, historically, many such reviews have been conducted. In fact, the Government Accounting Office is currently reviewing the Department of Defense's past A-76 efforts and future A-76 plans.

Question. What actions do you plan if the savings do not materialize as planned? More outsourcing? Cuts in procurement? Force structure? Readiness?

Answer. If the savings are not achieved, funding planned for additional modernization programs will be delayed or an equivalent savings will be achieved through economies and efficiencies in other areas. However, we expect to achieve savings as planned, because our projections are more conservative than the average savings achieved by the Army and by the Department of Defense in the past. Specifically, we have programmed 20 percent savings compared to the historical average of 28 percent savings. During the last several years, as we have emphasized the savings that competitive sourcing can produce, we have allowed our commanders to make the local decisions on which specific commercial activity functions to study. They are in the best position to know what makes sense to compete and when, supporting readiness as our number one priority. In separate actions, the Army is already reducing military manpower from 495,000 to 480,000 to comply with Quadrennial Defense Review decisions.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

CIVILIAN REDUCTIONS

Question. Mr. Secretary, over the past decade the Army has cut its civilian workforce by 166,000 people. Many of these cuts were related to base closings. Over the next five years, you plan to cut another 21,000 jobs unrelated to base closure. Already there are some members of Congress requesting that civilians should not be cut from their particular bases. How do you suggest we respond to these requests?

Answer. Reductions in the budget translate to reductions in civilian manpower. As we face budget reductions and must shift some resources to modernization programs, we look to efficiencies in performing the mission. These efficiencies are based on decreases in workload or sometimes outsourcing a function if cost effective through a competitive process. Other adjustments in workload and work force are made based on changes in force structure.

Question. Mr. Secretary, I have been on the Appropriations Committee for nearly 30 years, and I cannot recall another occasion in which a department was cutting its workforce this year below congressionally approved levels in anticipation of future cuts. Would you explain to me, from your position, why this is Army policy?

Answer. Army is aligning the workforce to missions and funding levels. We provide Commanders some flexibility in the year of execution to meet mission requirements by increasing or reducing personnel strengths not submitted in the budget. Commanders in the field from time to time must re-balance resources in order to protect readiness and soldier quality of life. It is this re-balancing to which you are probably referring.

COMANCHE

Question. The Comanche program and its forerunner, the LHX, have been in development for 15 years. What possible rationale can you provide for this, and why should we continue to fund its development for the next eight years to begin production?

Answer. The Comanche program has undergone a number of externally imposed restructures over the years. What has not changed is the Army's critical battlefield

deficiency of armed reconnaissance. Comanche is key to Army modernization and will replace the Vietnam-era AH-1 Cobra and OH-58A/C aircraft with a survivable, versatile, lethal, and deployable armed reconnaissance aircraft to meet that critical battlefield deficiency.

THEATER HIGH ALTITUDE AREA DEFENSE

Question. Last week, the Theater High Altitude Area Defense (THAAD) missile missed its fifth consecutive target. Have you examined this program, its schedule risk to consider whether it might make sense to require it to hit targets more than once before we should buy the missiles?

Answer. We are presently looking at several options, one which includes executing the User Operational Evaluation System (UOES) contingency option after two intercepts, and other options that include conducting additional testing on risk reduction missiles. We will present our options to the Department of Defense (DOD) at the Overarching Integrated Product Team (OIPT) meeting this summer. The OIPT will reach a consensus regarding how many intercepts will be considered adequate to execute the UOES missile contingency option or whether additional risk reduction testing is necessary to reduce procurement risk.

Question. Would you support a policy where DOD did not buy any of these advanced "hit-to-kill" missile defense systems until it had demonstrated repeated successes in actual flight testing?

Answer. Current "hit-to-kill" missile defense systems require demonstrating repeated successes in actual flight testing prior to entering the Engineering and Manufacturing Development (EMD) acquisition life cycle phase. For example, the THAAD program's current requirement is to demonstrate three successes in actual flight testing prior to entering the EMD phase.

JOINT STARS DATA LINK SYSTEM IMPROVEMENT PROGRAM

Question. I am told that the Joint Surveillance Target Attack Radar System (STARS) aircraft relies on the Surveillance Control Data Link (SCDL) to pass information between the aircraft and ground stations. Can you tell me if the Army is planning to upgrade this data link and whether there would be significant cost savings by implementing this modernization at a faster pace?

Answer. The Army began the SCDL System Improvement Program (SIP-1) in fiscal year 1996 with \$1 million to solve the Disappearing Military Suppliers (obsolete parts) problem by converting digital circuit boards to modern software-based Field Programmable Gate Array (FPGA) boards. Additionally, other technology was inserted to reduce production costs. SIP-2 began in fiscal year 1997 with \$12 million and continues the modernization effort by converting all air and ground digital boards to FPGA boards. SIP-2 completion is scheduled for January 1999. SIP-3 is scheduled to begin in fiscal year 2000, but \$16 million in fiscal year 1999 would accelerate the start by one year, immediately follow SIP-2, and result in an \$84 million life cycle cost savings versus \$70 million. SIP-3 will provide a higher data rate SCDL needed for the Joint STARS Radar Technology Insertion Program and reduce the size and weight of the SCDL Ground Data Terminal, allowing the addition of new sensor and communications systems to the Joint STARS Common Ground Station.

QUESTIONS SUBMITTED TO GEN. DENNIS J. REIMER

QUESTIONS SUBMITTED BY SENATOR TED STEVENS

DIGITIZATION

Question. Will the entire Army eventually be digitized, or will digitization efforts focus on providing a "digital backbone?" Which modernization programs are now being considered as key division assets?

Answer. To achieve the goal of Army XXI by the year 2010 (in accordance with Joint Vision 2010), nearly all of the Total Army will be digitized. All Active component units and a significant number of Reserve component (Army National Guard and Army Reserve) units will be digitized by 2010. This equates to five heavy divisions, one composite division, four light divisions, one armored cavalry regiment, one light cavalry regiment, four corps headquarters and corps troops (most Reserve component units to be digitized by 2010 fit into this category), the training base, and the Army and Commander-in-Chief headquarters.

The Reserve component slice will be fielded with their Active counterpart units, primarily combat support and combat service support units, but also some combat

arms units such as Field Artillery and Air Defense Artillery. Current plans call for the Army National Guard Enhanced Separate Brigades to be digitized with the "backbone" systems and Force XXI Battle Command Brigade and Below (FBCB²)/Applique by 2012, with most units fielded by 2010.

The Army does have a "digital backbone." These systems are the eleven Category 1 Digital Systems: they consist of the five Army Tactical Command and Control Systems, FBCB²/Applique, and five communications systems (most make up the Tactical Internet). A digitized division must be fielded with these eleven systems as a minimum to be considered a "digitized" unit. U.S. Army Training and Doctrine Command has also developed a draft list of Category 1 Systems for Light Units.

The "digital backbone" described above and a select number of modernization systems are considered key division assets. The modernization systems include: the M1A2 System Enhancement Program tank and M2/M3A3 Bradley Fighting Vehicle with embedded FBCB² or the M1A1D and M2A2 Operation Desert Storm configuration; FBCB²; Maneuver Control System; All Source Analysis System; Advanced Field Artillery Tactical Data Systems; Forward Area Air Defense Command and Control; and Combat Service Support Control System.

Question. Will upgrades of Abrams tanks be continued beyond the current multiyear contract?

Answer. The current multiyear ends in fiscal year 2000. The fiscal year 1999 President's budget includes funding for a follow-on three-year multiyear procurement for an average of about 95 Abrams upgrades per year. Advance procurement for the next multiyear begins in fiscal year 2000, and the last procurement year is fiscal year 2003.

Question. Will the new command and control vehicle, the C2V, program continue under the current plan?

Answer. The Army fully supports the fiscal year 1999 President's budget request for the C2V program. In fiscal year 1999, the Army will fund \$46.7 million, which will procure ten C2V's. These C2V's will be fielded to the 4th Infantry Division.

The C2V provides the Army an essential global communications and command and control platform. The C2V enables commanders and their staffs to rapidly assimilate the Army's Battle Command Systems into a single node to plan and execute heavy force operations on the digital battlefield. The capabilities and unique features of the C2V far exceed the capabilities of the current M577 Command Post Vehicle.

The C2V is in its second year of Low Rate Initial Production. The program is on schedule and within budget. We used five C2V's during our Brigade Task Force XXI Advanced Warfighting Experiment (AWE). The AWE validated the critical need for the C2V.

Unfortunately, total Army budgetary constraints have forced the Army to consider restructuring the C2V program. The planned program represented in the fiscal year 1999 President's budget buys 439 C2V's, which will field it to all Active heavy units, war reserves, and the training base. Although we would like to continue with the program in its current form, a restructuring would allow the Army to pay for other urgently needed programs. An alternative under consideration will provide C2V's to the Army's First Digital Corps only.

ARMY NATIONAL GUARD INTEGRATION PILOT PROGRAM

Question. General Reimer, I understand that the Army is initiating a pilot program called Agile Warrior. Would you explain the concept and explain how it will improve integration between the Active Army and the Army National Guard?

Answer. While still in the development phase, the Divisional Teaming pilot program (previously known as "Agile Warrior") will pair selected Active and National Guard combat divisions in a relationship that will cover the entire spectrum of Army operations. Under the Divisional Teaming concept, partnered divisions will conduct joint planning, training, and readiness assessments. When called upon to support operational requirements, the divisions will team their resources for rapid response. The Army National Guard will augment and assist its partnered command, speeding deployment of the Active division and then conducting their own follow-on, post-mobilization preparations. In the event of domestic emergencies or homeland defense, the Active division will be prepared to supplement and reinforce the Army National Guard division's lead. Integration will be greatly enhanced as the divisions work together accomplishing specific missions. Through the Divisional Teaming partnership, both units will benefit, and the Army's capability to respond across the full spectrum of military operations will be greatly enhanced.

Question. How many units will be assigned under this concept initially?

Answer. The specific number of divisions to be teamed under the initial phase of the Divisional Teaming program is still being determined.

Question. If this pilot program is successful, will all Army divisional forces be aligned in this manner?

Answer. Yes. If the pilot program is successful, the intent is to establish a teaming relationship between all eight Army National Guard divisions and eight of ten Active component divisions.

QUESTIONS SUBMITTED BY SENATOR PETE V. DOMENICI

READINESS

Question. How do you survey people leaving the Army, and those staying?

Answer. The Army uses the same Army-wide survey (the semi-annual Sample Survey of Military Personnel (SSMP)) for both those leaving the Army and those staying in the Active component. This approach allows the Army to compare the responses of those who are thinking about or definitely plan on leaving the Army with those who are planning to stay past their current obligation and/or to retirement.

Question. Do you use "blind," anonymous surveys or face-to-face meetings with commanders.

Answer. The SSMP is an anonymous survey, printed on optical scan paper to facilitate transferring the responses from each soldier to a data file for analysis. The soldier places the completed survey in an envelope, seals it, and returns it to the person who distributed the survey or mails it directly to the Army's central survey processing point.

At the unit level, commanders conduct informal exit interviews with soldiers who are leaving. The results of these interviews usually are not sent to a central collection point.

Question. Why would you trust data on these issues if they are based on face-to-face interviews?

Answer. The face-to-face interviews with commanders permits departing soldiers to point out strengths and weaknesses of the unit, without having to be concerned with the potential impact the comments might have on their future careers. Conducting the interviews immediately before the soldier leaves the unit is one way of encouraging candid comments. Usually, no "data" or results are compiled on the basis of these interviews. For commanders, the interviews are one of many tools used to assess the status of their units.

Question. Do you collect and retain survey data? Please provide the results from this data.

Answer. The Army Personnel Survey Office (APSO) at the U.S. Army Research Institute for the Behavioral and Social Sciences is responsible for conducting the SSMP, analyzing the data, and reporting the findings to Army activities sponsoring selected survey topics as well as to top Army leaders. For some topics, APSO has trend data dating back to the mid-1980's. Below is a table reporting the percent of officers and enlisted personnel who are satisfied with various aspects of their Army jobs and the quality of life in the Army from surveys taken over that last four years.

	[In percent]									
	Officers (percent satisfied, very satisfied)					Enlisted Officers (percent satisfied, very satisfied)				
	S 1994	F 1994	S 1995	F 1995	S 1996	F 1996	S 1997	F 1997	S 1994	F 1997
Access to education/training	68.9	68.7	67.6	68.1	70.4	71.2	70.4	69.8	56.0	58.7
Amount of enjoyment from my job	78.1	77.9	77.7	75.7	78.5	77.3	77.3	76.6	60.6	61.6
Amount of equipment/supplies	54.7	51.5	54.3	54.1	56.8	54.9	56.1	54.0	39.1	41.1
Amount of paperwork	37.7	35.7	35.5	37.3	40.1	38.6	38.6	38.9	53.7	54.8
Amount of pay (basic)	65.4	61.5	61.4	62.3	61.9	61.0	61.3	58.1	33.1	29.3
Amount of personnel available to do work	38.2	34.9	33.5	33.3	33.7	32.5	29.9	32.3	40.5	41.3
Amount of regulation and discipline	72.2	72.4	71.1	71.1	70.9	70.5	67.6	68.3	63.5	63.2
Amount of respect from superiors	80.0	81.7	81.2	80.0	81.5	82.4	81.6	82.7	60.7	61.8
Amount of time separated from family	60.2	58.5	56.7	51.5	54.0	50.7	51.9	52.8	42.0	45.6
Amount of VHA/COLA	50.2	45.1	48.0	54.7	49.9	49.5	49.7	46.7	37.9	36.8
Assignment to leadership jobs	80.5	80.1	79.5	79.0	80.2	81.7	79.9	79.1	62.0	62.6
Assignments to jobs offering tech/prof development	73.3	73.1	71.6	71.4	72.4	71.7	72.0	72.1	47.9	48.8
Availability of Army family programs	74.1	73.5	75.0	74.3	76.1	76.7	76.0	74.8	67.3	67.5
Availability of family dental care	25.7	27.1	30.4	33.4	32.6	33.3	37.3	36.7	37.9	39.4
Availability of family medical care	35.0	32.8	33.6	38.6	39.7	38.7	40.2	40.7	43.4	43.8
Availability of government housing	37.9	36.0	32.8	39.4	35.8	37.7	37.6	38.5	29.2	32.2
Commissary	81.4	80.8	81.9	81.4	81.1	80.5	81.6	81.7	80.6	78.5
Compensation for PCS moves	48.5	54.1	51.5	51.6	53.6	52.8	56.2	55.0	50.4	51.5
Control over my job assignments	54.5	54.4	52.2	52.8	54.7	55.4	52.9	54.0	43.5	45.5
Dependent schools (DODDS)	69.6	71.3	69.2	68.0	71.6	73.3	67.5	68.6	66.7	68.8
Fairness of married vs. single pay	77.9	76.8	76.7	76.0	79.2	77.9	79.6	76.8	54.9	52.9
Geographic location of jobs	80.7	81.2	79.3	79.9	78.7	78.7	78.3	78.4	69.4	70.5
Job security	53.1	54.0	53.8	55.6	53.9	56.8	55.8	59.8	62.5	63.4
Length of working hours	65.8	63.6	62.8	58.0	62.1	62.0	61.6	60.1	61.9	62.4
Level of competence of co-workers	78.9	79.8	78.4	77.2	78.8	79.3	77.3	77.2	62.9	63.8
Level of competence of supervisors	77.3	79.3	77.7	77.2	78.6	80.4	77.8	80.4	62.5	63.8
Level of educational benefits	68.9	68.1	68.5	69.8	72.9	71.1	71.4	70.7	59.7	57.2
Level of fairness in how my performance is eval	74.1	73.5	73.1	72.6	73.9	76.2	76.8	78.1	65.0	65.3
Level of job fulfillment/challenge	79.8	78.5	79.8	77.3	80.2	79.8	78.3	78.6	60.5	62.8
Level of recognition for my accomplishments	69.3	68.2	69.1	70.5	70.2	73.1	71.7	72.1	47.2	47.8
Living conditions overseas	65.7	63.0	63.5	60.1	63.5	60.4	56.1	58.7	56.2	54.2
Living conditions stateside	76.9	72.0	71.8	72.9	71.4	69.3	70.9	70.1	54.1	55.0
Number of PCS relocations	72.0	72.3	69.1	69.2	70.0	67.3	68.1	68.0	60.9	62.3

[illegible]

Question. What do your latest 1998 data show about retention of basic infantrymen, mechanics, cooks, and pilots? Is it getting better or worse? Is it better or worse for married personnel? With families? What are the socio-economic profiles of the people leaving? Staying?

Answer. Retention data through the first half of fiscal year 1998 shows overall retention in the requested specialties to be at or above fiscal year 1997 levels. Rates for first-term infantrymen averaged 47.9 percent from fiscal year 1994-96, but dipped to 44.2 percent in fiscal year 1997. They have rebounded to 49.5 percent thus far in fiscal year 1998. This is largely attributable to increasing the reenlistment bonus for infantry during fiscal year 1997 at an additional cost of \$14 million per year. Rates for mid-career (reenlisted once with 10 or less years service) infantry soldiers have risen from 72 percent for fiscal year 1994-96 to 75 percent for fiscal year 1997 and fiscal year 1998 to date.

Retention for cooks has remained well above Army averages in all categories from fiscal year 1994-97. However, there has been a decline in cook retention in fiscal year 1998, compared to fiscal year 1997. Retention rates for first-term cooks were 62 percent in fiscal year 1997, compared with 56 percent in fiscal year 1998. Mid-career rates have fallen from 79 percent in fiscal year 1997 to 74 percent in fiscal year 1998. It is still too early to tell if this trend is the beginning of a steady decline or due to other factors.

Mechanic retention for both first-termers and mid-careerists fell substantially during fiscal year 1995 and fiscal year 1996, attributable to budget forced promotion slowdowns, bonus reductions and a strong economy. Mechanic retention rebounded in fiscal year 1997 and in fiscal year 1998. Critical mechanic skills were added to the reenlistment bonus program in fiscal year 1997 and remain for fiscal year 1998. Mechanics will remain in the bonus program as a hedge against future losses impacted by the availability of civilian employment. Fiscal year 1997 first-term rate was 52 percent, compared with a 47 percent rate for fiscal year 1994-96. The fiscal year 1998 rate is 54 percent. Mid-career rates show similar trends.

Pilot retention has remained consistent since fiscal year 1994; however, under accessioning from fiscal year 1995-97 and opportunities for civilian employment have hampered readiness and retention. Anticipated pilot losses for fiscal year 1998 are 450-525, with accessions expected to be approximately 350. Pending bonuses for pilots, if approved, are expected to offset some losses.

Retention of married soldiers with families has declined slightly since fiscal year 1995, particularly among frequently deployed soldiers. Minority soldiers have been reenlisting at rates (5-8 percent) higher than white soldiers. Married soldiers cite spousal dissatisfaction and perceptions of benefit reductions as major reasons for leaving the Army. The socio-economic status of soldiers who depart is nonconclusive. Soldiers with marketable skills and higher aptitude capabilities have a higher loss rate than soldiers from lower aptitude groups.

Question. What are the specific complaints of people leaving the Army?

Answer. The Sample Survey of Military Personnel, conducted most recently during the fall of 1997, has identified the following as the most important reasons for soldiers thinking about or leaving the Army before retirement: amount of time separated from family; amount of enjoyment from job; amount of basic pay; overall quality of life in the Army; retirement benefits; and promotion/advancement opportunities.

Question. What are the reasons for staying of the people who stay?

Answer. The decision to stay in or leave the Army before retirement is very complex, including job satisfaction, quality of life, patriotism, and enjoyment of the Army way of life. Usually, there is no single reason for staying in, just as there usually is no single reason for wanting to leave the Army. However, the following are those aspects of the job and quality of life issues which have been rated highest in satisfaction according to the fall of 1997 Sample Survey of Military Personnel and are believed to contribute most heavily to a soldier's decision to stay in the Army:

Officers

Amount of respect from superiors
Quality of recreational services
Commissary benefits
Overseas duty
Level of competence of supervisors
Availability of recreational services
Assignment to leadership jobs
Level of job fulfillment/challenge
Youth services
Geographic location of jobs

Enlisted

Commissary benefits
Quality of recreational services
Availability of recreational services
Youth services
Post Exchanges benefits
Geographic location of jobs
Overseas duty
Job security
Quality of military dental care
Availability of Army family programs

Question. Which of your "quality of life" programs are working? Which are not?

Answer. All of the quality of life programs the Army offers are working. Soldiers' satisfaction with the availability and quality of family and recreation programs, as measured by the Army-wide Sample Survey of Military Personnel, remains high. The survey measures 55 quality of life and job issues. Satisfaction with quality and availability of recreation programs ranks within the top five, and all morale, welfare and recreation (MWR) programs rank within the top 20. To maintain its consistently high ranking, Army MWR tailors its quality of life programs based on populations, locations, and trends. Each installation offers those programs from the Army-wide mix that its community demands. Commanders consider availability and accessibility of programs and services off the installation. Both installations and higher headquarters track new ideas to either modify existing programs or offer new programs to further improve quality of life. We are currently redesigning our teen programs to improve the quality of service, better meet the needs of our teens, and enhance program management. We are fielding an improved outdoor recreation program. We are also exploring ways to strengthen our fitness program with trained and certified fitness professionals, equipment standards, and centralized acquisition of equipment.

Question. Which generate the best pay-off in terms of retention? Please provide the data and analysis to substantiate your answer, or are you using judgment or anecdotal evidence to assess the degrees of success or failure?

Answer. We know of no studies in the Army or the other services that show which programs generate the best pay-off in terms of retention. The Walter Reed Army Institute of Research is conducting exploratory research using existing survey databases to determine program impacts on quality of life and retention. In 1996, Caliber Associates reviewed military and civilian literature for the Army. Their report, *Morale, Welfare and Recreation (MWR) Programs and Readiness Links*, presents findings from over 100 studies, mostly military, that tie MWR programs to "commitment." Commitment is defined as the strength of an individual's identification with and involvement in the work organization, including allegiance, determination, and retention.

Question. Does the Army have any studies of these issues? By independent organizations? Please provide copies.

Answer. We have provided a copy of Caliber Associates' MWR Programs and Readiness Links separately to the committee. The report's bibliography lists the studies that Caliber Associates reviewed.

Question. What changes have been occurring in spouse and child abuse for the past two years? Please differentiate between officers and enlisted, length of service, and among major military specialties and PERSTEMPO rates.

Answer. The rate of substantiated spouse abuse incidents among enlisted soldiers declined from 12.2/1,000 in fiscal year 1996 to 10.9/1,000 in fiscal year 1997. The rate among officers also declined from 1.4/1,000 in fiscal year 1996 to 1.1/1,000 in fiscal year 1997. In the area of child abuse, the substantiation rate among enlisted soldiers was 8.2/1,000 in fiscal year 1996, and remained unchanged in fiscal year 1997. Among officers, the rate declined from 1.7/1,000 in fiscal year 1996 to 1.3/1,000 in fiscal year 1997. Given the limitations of the data we collect, we are unable to differentiate abuse based upon length of service, military occupational specialty (MOS), or PERSTEMPO rates presumably tied to MOS.

Question. What is the role of the current high PERSTEMPO in any changes in family abuse? Please provide copies of any analysis you have of the relationship.

Answer. We are not aware of any research showing a statistically significant relationship between high PERSTEMPO and family violence.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUE

CIVILIAN REDUCTIONS

Question. General Reimer, last month I met with Army military leaders in Hawaii, and I learned that they are making large civilian cuts in their work force this year even though they have funding to pay them, but because they have been told by Army Headquarters that they won't have funding to keep them in 1999. Can you explain why Headquarters is mandating that these cuts be taken now to pay for shortfalls in the coming year.

Answer. We are not mandating early reductions. The commanders are taking this action as the most effective and efficient way to use their resources to protect readiness and quality of life. Commanders are attempting to implement these reductions through voluntary separations to the maximum extent possible. Savings from the

reductions are being put into other areas that are critical to accomplishing the commanders' missions.

COMANCHE

Question. General Reimer, 14 years ago the Army wanted to accelerate the development of the Comanche so that it would reach its initial operating capability in 1992. Obviously that didn't happen. It is now 1998, and we are still eight or nine years away from starting Comanche production. When do you now expect to have an initial operating capability, or the first operational unit in the field?

Answer. Low Rate Initial Production will begin in 2004, and we will field the initial operating capability unit, a troop in the divisional cavalry squadron of the First Cavalry Division, Fort Hood, Texas, in December 2006. We plan to complete fielding the rest of the squadron by the end of 2007.

QUESTIONS SUBMITTED BY SENATOR ERNEST F. HOLLINGS

ARMY PREPOSITIONED EQUIPMENT

Question. The South Carolina (SC) National Guard believes it could less expensively and more efficiently manage the Army's prepositioned (PREPO) equipment in Charleston. I support the National Guard in this endeavor as this mission seems an ideal one for the National Guard. Therefore, I trust that you will insure that their proposal is heard and fairly evaluated as you seek a competitive maintainer of this important war reserve equipment.

Answer. The Army will conduct a fair competition between private industry and the SC National Guard. The process will begin with a pre-solicitation conference on July 1, 1998, for all interested parties as well as the SC National Guard. A final decision will be in accordance with contractual procedures governed by law.

MEDICAL CARE

Question. I receive letters from retirees and active soldiers alike who are concerned that the promise of free, lifetime medical care is being broken. A recent letter from a Fort Jackson commander expressed concern that a shortage of doctors at the military hospital caused his troops to be treated off post, costing them money and taking them away from training for long periods of time. Retirees tell me that it is more difficult, and often impossible to receive treatment in military medical facilities.

What is the Army doing to improve medical care for soldiers and retirees?

Answer. The Army Medical Department (AMEDD) is concentrating considerable energy on a number of initiatives to improve medical care for soldiers and retirees, as well as for their families. These initiatives include the implementation and enhancement of TRICARE system-wide, and Army emphasis on health promotion to keep our people in an optimal state of health and fitness.

TRICARE is now implemented nationwide and offers our beneficiaries access to a quality medical benefits package at a reasonable cost. All active duty soldiers are automatically enrolled in TRICARE Prime and, as always, are our top priority for care. When needed care is not available at nearby medical facilities, our soldiers are either referred to military medical centers or are assisted in obtaining care from local civilian providers, with full consideration of duty requirements and at no cost to the soldier.

The Army has led the way in pursuing meaningful enhancements to the TRICARE program. Among these, we have succeeded in establishing family-focused features, such as TRICARE portability and split enrollment, which assure continuity of the TRICARE Prime health benefit for all beneficiaries and reduce enrollment fees for our retired families. Also, those eligible under the Civilian Health and Medical Program for Uniformed Services may now elect to use the National Mail Order Pharmacy Program which offers very low cost prescription service when access to a nearby military pharmacy is not possible.

The AMEDD is aggressively promoting real health preventive measures such as patient education, personal behavior changes, and early disease detection. Along with the other services, we have targeted alcohol consumption, accident prevention, and tobacco cessation as the centerpiece of our health promotion program.

Although "the promise of free, lifetime medical care" is an understanding currently not supported by the Justice Department and the Courts, the AMEDD is doing everything possible to provide low cost quality medical care to all our beneficiaries. In cooperation with other Department of Defense elements, we have succeeded in obtaining Congressional authorization and Health Care Financing Admin-

istration (HCFA) cooperation to conduct a Medicare Subvention demonstration which we believe will provide the basis for extending military health care to our military retirees beyond their 65th birthday. Two of our Army demonstration sites, Madigan Army Medical Center and Brooke Army Medical Center, have recently undergone successful HCFA on-site certifications, and we anticipate initiation of the demonstration very soon.

ACTIVE COMPONENT/ARMY NATIONAL GUARD INTEGRATED DIVISION HEADQUARTERS

Question. I want to again express my disappointment that the division headquarters of the National Guard division with brigades in North Carolina, South Carolina, and Georgia has been located in Fort Riley, Kansas, instead of centrally in South Carolina. I believe this headquarters arrangement shortchanges the National Guard, will cost the taxpayers more in travel funds, and waste precious training time for brigade leaders. I'd like you to evaluate this arrangement during the first year and provide me a report of your findings. I am convinced that a rational look at this proposal will result in much needed changes to locate the headquarters with the troops, preferably with the division forward, not 1,300 miles away.

Answer. The locations for the integrated divisions' headquarters and their forward elements were approved on December 2, 1997, by the Secretary of the Army after a rigorous analysis with on-site surveys of 15 potential sites. Sites evaluated on the east coast included Forts Jackson, Knox, Drum, Rucker, Campbell, and Stewart. The weighted criteria applied during the analysis were the availability of division headquarters facilities, base facilities, simulation centers, motor pools, a transportation hub, and living areas and the ability to support a transition to an alternative divisional organization for the integrated division. This meticulous evaluation resulted in the selection of Fort Riley with a forward element at Fort Jackson for the heavy division. Throughout the entire process, the National Guard Bureau, the Adjutants General from states with enhanced Separate Brigades, and Forces Command provided input to and support of the final decisions. The benefits derived from association with the division and the selected locations far outweigh the minimal investment of time and money for travel. Fort Riley was selected based on its established heavy maneuver training areas, which currently serve two heavy maneuver brigades. In addition, the 218th Infantry Brigade of the South Carolina Army National Guard has had an historic training relationship with Fort Riley. Fort Riley also possesses adequate division headquarters buildings and facilities; an advanced simulation center; and an established garrison command headquarters supporting heavy combat forces. Fort Jackson, which is predominately a training installation, serves as the forward element and would provide the necessary daily command and control functions. In addition, the forward element at Fort Jackson will be able to accomplish a significant portion of the tasks for training support and mentoring the three assigned enhanced Separate Brigades.

One year after the activation of the two integrated divisions, a report will be provided on the effectiveness of this arrangement.

SIMULATORS

Question. What is the Active Army plan to incorporate weapon training simulators? What is the current status of this plan? As background, understand that the U.S. Marine Corps (USMC) and Air Force have successfully used weapons simulation to help maintain skills and also offsetting some of the requirements for ammunition and operating tempo (OPTEMPO) resources.

Answer. Today's Army (Active and Reserve components) increasingly relies upon simulators and simulations. A wide range of devices are already in use, and new ones are being developed (e.g., live—Multiple Integrated Laser Engagement System 2000; virtual—Close Combat Tactical Trainer (CCTT); and constructive—Warfighter's Simulation) that will create a seamless virtual environment from crew through combined arms task force level.

Our goal is to have repetitive, structured training to standard in tough, realistic, increasingly difficult conditions across all domains: live, virtual, and constructive. In some cases simulation training will be used to precede actual live training, thus allowing live training to become more intense and to remain the center piece of the Army's training program. In other cases simulation training can substitute for live training. For example, we have done Division and Corps command and staff training for years using only simulations.

As capabilities in simulators and simulations increase, we will be able to substitute some for live training events to achieve savings in OPTEMPO and reduce personnel tempo (PERTEMPO) while retaining our commitment to high quality training. Examples of offsetting live OPTEMPO include: CCTT—Platoon maneuver

tasks associated with 60 miles of live training can now be performed in CCTT simulators; and Tank Weapons Gunnery Simulations System/Precision Gunnery System—Using these simulators, we have increased gunner and crew proficiency while also reducing the amount of ammunition we buy. Tank rounds saved—10 Active component and 5 Reserve component; and 25 mm rounds saved—192 per Bradley Fighting Vehicle (BFV) and 193 per Cavalry Fighting Vehicle (Active component only).

Question. What is the plan to use simulation in weapons training in the Army Reserve? What is the current status of this plan?

Answer. The U.S. Army Reserve (USAR) supports and uses training aids in accordance with the Army's Training Aids, Devices, and Simulation Systems guidance. The USAR trains with all simulator systems used by similar Active component units. The USAR has incorporated the use of weapons simulators as they have become available. Historically, the Weaponeer, Multi-purpose Arcade Combat Simulator and the Fire Arms Training Simulator have been utilized to enhance weapons training capabilities for small arms. The USAR does not require simulators for heavy weapons, i.e. tanks, artillery, and air defense. However, it does employ attack helicopters and utilizes the Combat Mission Simulator for both weaponry and flight training for its AH-64 Apache helicopters. It incorporates simulators within training plans subject to the availability of funds for acquisition, travel, and training, particularly train-the-trainer instruction.

Question. What is the plan to use simulation in weapons training in the National Guard? What is the current status of this plan?

Answer. The Army National Guard (ARNG) plans to use training aids, devices, simulators, and simulations to replicate, but not replace, live weapons training to the fullest extent possible. This includes the spectrum from individual weapons to crew gunnery and force-to-force maneuver training.

Because National Guard training is inherently constrained by time, distance to ranges, and range availability, the ARNG is committed to maximizing the use of simulation. The ARNG is a full partner with the Army Reserve and the Active Army in supporting the development of simulation in the Total Army training strategy.

The ARNG uses sophisticated simulation devices and models in individual weapons training, vehicle and cockpit crew training, and force-on-force simulations. Simulators and simulated training are, and will continue to be, a critical component of the ARNG's plan for maximizing the use of all available resources for training.

QUESTIONS SUBMITTED BY SENATOR LARRY CRAIG

NATIONAL GUARD FUNDING

Question. I am very concerned about the \$634 million shortfall in the National Guard operating budget—the difference between the overall amount recommended in the Administration's budget and the funding needs as assessed by the 50 states' National Guard units. This shortfall could prove detrimental to the 41,000 guardsmen by limiting education, annual training, or even promotions.

I would like to know whether this shortfall implies a fundamental shift in the National Guard's capability and mission, from war fighting to acting as a war-support mechanism.

What are the Administration's—and I assume the Defense Department's and the Army's—policy and mission objectives in recommending a budget with this shortfall?

Answer. In fiscal year 1999, the Army National Guard's (ARNG's) operating budget is at 90 percent of its reported critical requirement, leaving the \$634 million reported shortfall. There are shortfalls throughout the Total Army and the \$634 million ARNG shortfall represents a part of the Total Army's overall \$3 to \$5 billion funding shortfall for fiscal year 1999. To mitigate the readiness impact of the funding shortfalls, the "First to Fight" funding philosophy was adopted. The "First to Fight" principle balances risk across all components. The ARNG is adequately funded to support the National Military Strategy.

The identified shortfall does not imply nor has there been a policy or mission change which was designed to negatively impact the ARNG's capability. Current Army resource levels affect every aspect of the Total Army (i.e. personnel, training, equipment, and modernization). We continue to place increasing emphasis on the management of our very constrained and limited Total Obligation Authority. These limited resources force us to make some difficult choices among a number of competing program requirements while attempting to sustain and protect combat readiness. The Total Army budget was submitted with risk apportioned to units in accordance with applicable war-fight requirements.

GROUND OPERATING TEMPO

Question. With regard to Vehicle Operating Tempo (OPTEMPO), in per vehicle miles and total dollars:

What were the Army's budgeted OPTEMPO and the actual OPTEMPO for last year, fiscal year 1997? How do you account for the difference?

Answer. In fiscal year 1997, the Army budgeted 800 miles for all Active component units, funded at \$2,665 million. This mileage is based on what the Army needs to conduct critical battalion-level maneuver training. The actual miles executed were 654 miles, with \$2,290 million of funding executed.

Commanders in the field have had to balance training requirements with other programs that also impact on readiness. For example in Base Operations, commanders have been required to divert training dollars to pay for the sustainment of their training areas and ranges, motor pools, supply warehouses, railheads, airfields, and other areas that support training. Without these facilities, the units could not train.

Additionally, the Army has been heavily engaged in supporting contingency operations and performing other missions not directly related to its warfighting mission. The Army has been required to pay for these missions out of its current budget pending supplemental funding from Congress. If funding from Congress comes too late in the year, then training opportunities are lost due to the lack of time to execute training. That money will then be spent on other high priority programs. This accounts for some of the migration and underexecution that is evident today.

The Army has taken several steps in the current budget to bring the programming and execution of resources more in line. We have also taken several steps to reduce the overall cost of training, to include incorporation of simulation into our training strategies and use of heavy equipment transports to reduce the number of miles required to be driven by combat vehicles.

Question. What were the Army's budgeted OPTEMPO and the actual OPTEMPO for the current year, fiscal year 1998? How do you account for the difference?

Answer. In fiscal year 1998, the Army budgeted 800 miles for all Active component units, funded at \$2,509 million. This mileage is based on what the Army needs to conduct critical battalion-level maneuver training. OPTEMPO execution as of second quarter of fiscal year 1998 is 311 miles.

While the Army funded OPTEMPO in the President's budget at 800 miles, congressional reductions to Operation and Maintenance, Army, for fiscal year 1998 amounted to \$450 million. About \$178 million were in specified areas. Another \$272 million in reductions were unspecified in the Appropriations Conference report and those reductions were distributed on a fair share basis to Army commands.

Congressional direction and Department of Defense implementing instructions required more detailed reporting procedures for fiscal year 1998 that show earlier in the fiscal year the diversion of OPTEMPO to pay congressional and Headquarters, Department of the Army, bills. Commanders took reductions in the OPTEMPO accounts because of the fiscal year 1998 level of funding in Base Operations (80 percent) and Real Property Maintenance (62 percent).

After all the reductions were taken and budget realigned, approximately \$220 million was paid from OPTEMPO accounts. The net result is equivalent to reducing OPTEMPO from 800 miles to 652 miles, or OPTEMPO funding at \$2,291 million.

Question. What has been budgeted for the Army's OPTEMPO for the coming year, fiscal year 1999? What is the basis for any increase (or decrease) in the fiscal year 1999 budgeted amounts compared with the previous years' actual and estimated amounts?

Answer. For fiscal year 1999, the Army budgeted 800 miles for all Active component units, funded at \$2,489 million. This mileage is based on what the Army needs to conduct critical battalion-level maneuver training. There has been no significant increase or decrease in the Active component's OPTEMPO budget between fiscal year 1997, fiscal year 1998, or fiscal year 1999.

CONCLUSION OF HEARINGS

Senator STEVENS. This will conclude the hearings on the fiscal year 1999 budget request for the Department of Defense. If there is nothing further, the hearing is recessed.

[Whereupon, at 11:37 a.m., Wednesday, May 20, the hearings were concluded, and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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